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350 CASES OF PREFRONTAL LOBOTOMY

BY HARRY J. WORTHING, M. D., HENRY BRILL, M. D., AND HENRY WIGDERSON, M. D.

The first prefrontal lobotomy at Pilgrim (New York) State Hospital was done on March 20, 1945. For some time previously the attention of the senior author had been drawn to the operation by reports in the literature and by personal communications. With the consent of the Department of Mental Hygiene, a member of the resident hospital staff, a qualified neurosurgeon, had been sent to observe the procedure of Freeman and Watts,[1] during August 1944. On his return he gave an encouraging report which contained the rather prophetic words: "I believe that this operation will prove to be most beneficial to cases who have not been ill too long. Dr. Freeman has shown me figures which nearly parallel the data which has been accumulated on shock therapy in patients and which indicate that the best results are obtained when treatment is instituted as early as possible."

The first case at Pilgrim was a severe chronic schizophrenic, markedly negativistic and refusing food. Response was limited but clear-cut. Nutrition improved, negativism diminished, but massive defect persisted. A second and third case of similar type were done, and we were able to see marked amelioration of chronic disturbed behavior as a result of the operation. The last case of the first series was done June 6, 1945. The patient was a violently suicidal man suffering from intractable causalgic pain of 10 years duration. He had already undergone, at other hospitals, nerve section and bilateral section of the spinothalamic tract. The operation resulted in immediate cessation of suicidal attempts. There was progressive improvement and he was released, returned to his normal occupation, and was discharged a year later, apparently free of symptoms.

Our neurosurgeon left the state service at that time and, because of the stringencies of the immediate post-war period, we were unable to start our second series of lobotomies, the subject of the present report, until May 13, 1947. This entire series was operated by one of the authors (Wigderson). By July 8, 1949, 350 cases had been completed.

This series is based on a total resident population of slightly over 10,000 cases and an admission rate of something under 3,000

a year. The first 100 cases required over a year for completion. After that, the volume of work rapidly increased as the value of the procedure became clear.

Table 1 summarizes some of the results of this work.

Table 1

Operative numbers	Dates done	At home	Dead	Transferred to other hospitals	Still in hospital Imp.	Still in hospital Unimp.	Still in hospital Total
1-100	5-13-47 to 6-4-48	29*	6	3	..	..	62
101-200	6-5-48 to 12-28-48	28	4	1	..	..	67
201-300	12-28-48 to 5-3-49	8	3	0	..	..	89
301-350	5-6-49 to 7-8-49	0	1	0	..	..	49
Totals		65	14	4	178	89**	267
Per cent of 350 cases		18.57%	4%	1.26%	50.86%	25.43%	76.29%

*23 of the first 29 patients released have already been discharged.

**4 of these are probably worse (schizophrenic behavior problems).

The small number of releases in the third hundred is due in large part at least to the fact that release does not begin to take place for several months after operation and may be delayed until somewhat over a year later. Improvements are often slow and may continue to develop for many months, especially in cases of long duration. We are of the opinion that patients become more stable if they remain in the hospital after first achieving a good response. There have as yet been no releases after case number 252.*

We feel the more confident of our final remission figure of 29 per cent for the first 100 cases because it agrees fairly well with the corresponding figure of 26 per cent published by the British Board of Control in 1947.[2] This impersonal and apparently reliable report is based on 1,000 cases in a number of hospitals; and the material seems to have been of the same general distribution as our own with respect to duration of present attack, age, sex, severity, etc., although the proportion of schizophrenia is smaller. The British noted a strong correlation between the duration of present attack and the release percentage (64.2 per cent under one year and 14-16 per cent over 10 years). Our own figures classified according to actual duration of present hospitalization are presented in Table 2, and show a similar correlation.

*See footnote, Table 2.

Table 2. Duration of Present Hospitalization

A. First 200 Cases

	3 years or less	4 to 7 years	8 years or more	Total
Cases done, Nos. 1-200	98	55	47	200
Number at home	43	11	3	57
Number dead	2	4	4	10
Case with post-oper. convulsions*	0	5	4	9

B. Cases 201-350

	3 years or less	4 to 7 years	8 years or more	Total
Cases done, Nos. 201-350	67	30	53	150
Number at home	7**	0	1	8
Number dead	1	0	3	4
Cases with post-oper. convulsions	1	0	0	1

*Almost all cases had one, two or three convulsions only. One case with previous occasional convulsions shows a mild increase.

**Cases 264, 268, 269, 278, released since the writing of this paper, change this figure to 11.

Table 3 shows the distribution by diagnosis of all cases operated; Table 4 gives a similar breakdown of the patients released from the hospital. The first 200 cases were used for comparison, since, as has been stated, the bulk of releases to date are contained therein. The correlation between diagnosis and release for cases 1-200 can be seen in Table 5.

Table 3. 350 Cases Operated by Diagnosis and Sex

Diagnosis	Operative No. 1-100			Operative No. 101-200			Operative No. 201-300			Operative No. 301-350			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
D. P., simple	..	..	..	..	1	1	1	..	1	1	..	1	2	1	3
D. P., hebephrenic	7	9	16	5	12	17	9	16	25	7	8	15	28	45	73
D. P., catatonic	13	14	27	9	34	43	7	20	27	3	11	14	32	79	111
D. P., paranoid	11	32	43	8	21	29	15	23	38	3	8	11	37	84	121
D. P., mixed	..	2	2	1	1	2	1	1	2	..	1	1	2	5	7
Involutional Melanch.	1	2	3	..	..	..	..	1	1	..	..	..	1	3	4
Involutional, paranoid	..	2	2	..	2	2	1	3	4	1	3	4	2	10	12
Involutional (other)	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1
M.-D., manic	..	2	2	..	..	..	..	..	..	1	2	3	1	4	5
M.-D., depressed	..	3	3	..	1	1	..	..	..	..	1	1	..	5	5
M.-D., mixed	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1
Psychopath. personal.	..	1	1	..	1	1	..	..	..	..	..	..	..	2	2
Ps. with Ment. Def.— Epis. of Ex.	..	1	1	..	1	1	..	1	1	..	..	..	..	3	3
Psychoneurosis	..	..	..	..	1	1	..	1	1	..	..	..	..	2	2
Totals	32	68	100	23	77	100	34	66	100	16	34	50	105	245	350

Table 4. Operated Patients on Convalescent Care—By Diagnosis and Sex

Diagnosis	Operative No. 1-100			Operative No. 101-200			Operative No. 201-250			Total		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Dementia præcox, simple	..	..	..	..	..	..	1	..	1	1	..	1
Dementia præcox, hebephrenic	1	1	2	..	2	2	1	2	3	2	5	7
Dementia præcox, catatonic	3	4	7	2	15	17	..	..	..	5	19	24
Dementia præcox, paranoid	7	9	16	4	2	6	1	1	2	12	12	24
Dementia præcox, mixed	..	..	..	..	..	..	..	..	..	..	..	..
Involutional melancholia	..	..	..	..	..	..	..	..	..	..	..	..
Involutional, paranoid	..	2	2	..	2	2	1	1	2	1	5	6
Involutional (other)	..	..	..	..	..	..	..		..	..	..	..
Manic-depressive, manic	..	1	1	..	..	..	..	..	..	..	1	1
Manic-depressive, depressed	..	1	1	..	..	..	..	..	..	..	1	1
Psychopathic personality	..	..	..	..	..	..	..	..	..	..	..	..
Psy. with ment. def., epis. of ex.	..	..	..	..	..	..	..	..	..	..	..	..
Psychoneurosis	..	..	..	..	1	1	..	..	..	..	1	1
Totals	11	18	29	6	22	28	4	4	8	21	44	65

Table 5. Releases from First 200 Cases—By Diagnosis (Showing Percentages of Release)

Diagnosis	Operative No. 1-100			Operative No. 101-200			Totals		
	No. operated	No. released	Per cent	No. operated	No. released	Per cent	No. operated	No. released	Per cent
D. P., simple	..	..	..	1	..	..	1	..	..
D. P., heb.	16	2	12.50	17	2	11.79	33	4	12.12
D. P., cat.	27	7	25.88	43	17	39.53	70	24	34.29
D. P., para.	43	16	38.10	29	6	21.43	72	22	31.43
D. P., mixed	2	..	..	2	..	..	4	..	..
Invol. mel.	3	..	..	..	..	..	3	..	..
Invol., para.	2	2	..	2	2	..	4	4	..
Invol. (other)	..	..	..	1	..	..	1	..	..
M.-D., manic	2	1	..	..	..	..	2	1	..
M.-D., dep.	3	1	..	1	..	..	4	1	..
M.-D., mixed	..	..	..	1	..	..	1	..	..
Psycho. pers.	1	..	..	1	..	..	2	..	..
Psy. with ment. def., Epis. of Ex.	1	..	..	1	..	..	2	..	..
Psychoneuro.	..	..	..	1	1	..	1	1	..
Totals	100	29	..	100	28	..	200	57	28.79

Graded according to their productivity, the patients out of the hospital can be grouped as follows in Table 6. It will be seen not only that the release rate is higher with the earlier cases but also that the quality is better.

Table 6. Post-operative Productivity Related to Duration of Illness (Calculated from Date of Present Admission)

	3 years or less*	4-7 years	8 years and over	Total
Keeping house or working (normal)	18	2	1	21
Diminished productivity	13	4	0	17
Only personal needs	9	5	1	15
Require supervision	4	0	1	5
Totals	44	11	3**	58*

*6 unknown in 3 years or less group.

**1 tuberculosis hospital case in over 8 years group.

Clinical observation of lobotomy patients on convalescent care has not disclosed any striking general differences between them and other convalescent care cases of similar previous history. Unfortunately we have not been able to set up any statistical tables for comparison and can only present general clinical impressions.

The proportions of employment, further improvement, and residual defect, seem to be about normal. There seems to be less tendency to relapse after having gained a good grade of remission. Cases presenting defect states show somewhat more than the average tendency to marked obesity and increased need for sleep, especially shortly after their return home, but this tends to diminish as time goes on. The therapeutic effect of some occupation is perhaps even greater in these cases than in unoperated ones.

Certain changes with regard to sex have been noted. One woman, previously unmarried and schizoid, reached remission of schizophrenia, with moderate residual defect, but then was found to have a compulsive sexual drive of which she complained and which led to her return to the hospital. Since she is entering the menopausal period it may be that the effect is coincidental. In at least one other case a married woman began a normal sex life with her husband after having been frigid for many years; and in two others increased sex drive without corresponding capacity to achieve orgasm were noted. Other than this, the factor of sex did not play any different role than in the usual run of clinic cases.

There is a general tendency to report that the patient has found a much-desired calmness after a life-long tendency to over-react to minor irritations. Several involutional patients have shown

initially a tendency to motor restlessness which has gradually subsided with time.

Symptomatic Results

The permanent symptomatic improvement which follows lobotomy in cases with chronic behavior disorder has proved of no less practical importance than the release of patients from the hospital. Out of our first 350 cases, 267 now remain in the hospital; and of these latter, only 89 are considered to be little improved or unimproved (Table 1). This is 25.43 per cent of the operated series or approximately one-third of the patients now remaining in the hospital.

Betterment has been noted in a broad range of symptoms including planned homicidal, and impulsive as well as responsive, assault, suicidal drives, destructiveness, wetting and soiling, episodes of excitement and noisiness, mutism, withdrawal, aversion, refusal of food and other chronic negativistic manifestations, depression, agitation, psychotic anxiety attacks, tension states of obsessive, depressive and catatonic paranoid origin, psychotic aggressive homosexuality in men, fixed paranoid delusions and, in certain cases, chronic hallucinations of several years duration.

The evaluation of such responses must remain largely subjective or at least descriptive, but it is perhaps more reliable because it is based on a substantial agreement among a number of different observers of varying points of view. For this evaluation formal conferences have been held with the several grades of personnel who have contact with the patients, and in many cases their opinions were based on a continuous or intermittent hospital knowledge of the individual extending over five, 10 or more years. In addition, it may be pointed out that two of the authors have themselves known many of the lobotomy patients over a period of years.

Behavior improvement has been most clear-cut in the most severe cases; and, for this reason, symptoms of a positive nature, burdensome to the patient and to his environment, have been considered a prime indication for lobotomy (after failure of other reasonable measures). We have not found it reasonable to insist on long courses of shock in chronic schizophrenics hospitalized for more than several years. Good responses have been seen after four to six or more years of continuous disturbed regressed behavior, but some useful changes of more limited degree have been

regularly achieved after even longer periods. The symptomatic response of 50 regressed chronic male patients was reduced to tabular form in an attempt to obtain some quantitative measure of the response of various symptoms. The results are shown in Table 7.

Table 7. Behavior Response in 50 Disturbed, Regressed Chronic Males (Practically All Cases of Dementia Præcox)

	Complete cessation	Definitely less	Unchanged or little change	Much greater
Assaultive	27	7	7	0
Destructive	18	13	4	0
Out of contact	5	12	20	0
Chronic sedation and restraint required	5	15	3	0
Wet and soil	13	7	3	0
Aggressively homosexual	7	0	0	0
Productivity	0	2	31	17

Among individual symptoms we have noted that planned homicidal assault disappeared in all of seven such patients with this symptom operated in our series. As shown in Table 7, there is a conspicuous reduction also in responsive assaultiveness. Patients, who for many years, had assaulted others on the most trifling provocation now are able to tolerate real annoyance with no excessive response. It was said of one such patient, "The sting is out of him." In many cases we have found ourselves able to discard, for the first time in years, the use of restraint, seclusion and chronic sedation where previous attempts to relax precautions have resulted only in difficult or dangerous situations.

Coincidental with the reduction in wetting and soiling noted in Table 7, there was also a disappearance of aggressive homosexual activity, which previously had been a marked concomitant characteristic. This result was conspicuous, though unexpected (Cases 50-236-249). It may be significant that two female patients, who had manifested severe homosexual conflict and a tendency to self-mutilation, showed a very striking therapeutic response to lobotomy (Cases 33 and 65). It will be noted that no change is reported post-operatively which is not also observed to occur spontaneously, but it seems that the operation greatly increases the likelihood of such changes.

Among the unmeasured and perhaps unmeasurable gains from lobotomy, one may number the improved appearance and subjective state of the patients, the family attitude toward the improved state, and, finally, the effect on certain details of hospital management and morale of personnel, which follows the elimination of chronic severe behavior disorder from continued-treatment wards.

The subjective aspects of mental disorder, even chronic schizophrenia merit considerable attention. Kraepelin[3] (p. 195) describing schizophrenia speaks of "painful self-observation, . . . (patients) tormented, inwardly constrained, hindered in their capacity to work, . . . loss of self-confidence and independent energy . . . and a repellent reserved behavior. . . ." Where depressive components exist, and they are not rare especially in catatonic-like states, the subjective condition of the patient may be judged from such classic descriptions of personal experience as are found in Tennyson, Cowper, Burton and others. Perhaps that of Burton[4] is one of the best known:

> I'll change my state with any wretch,
> Thou cans't from gaol or dunghill fetch;
> My pain's past cure, another hell,
> I may not in this torment dwell!
> Now desperate I hate my life,
> Lend me a halter or a knife; . . .

The modern statistics of suicide as a complication of mental disease indicate how mankind still reacts to the torment of mental disorder.[5] It is no exaggeration to assert that, in the main, the experience of mental illness is a psychically unpleasant one which may and frequently does reach very severe degrees of painfulness. In any event, it is a fact that patients regularly describe an increased sense of well-being and equanimity following operation. One often hears such expressions as, "I have never been able to content myself with things before," or, "I used to have to worry about every little thing and couldn't get it off my mind. I can really relax now." We have made it a point to discuss this question with each of the patients; and, in only one individual, has there been found any tendency to claim that she felt worse than before. She was a severe, life-long psychoneurotic.

It is tempting to accept the thesis that much of the difficult behavior of psychotics is a more or less direct expression of an inter-

nal sense of psychic discomfort and conflict, and that the varied nature of the behavior-improvement following a single technical procedure depends on the basic fact, that an uncomfortable patient tends to be a "bad" one and a comfortable patient tends to be a "good" one. It may be that prefrontal lobotomy in some way has the effect of relieving intractable mental pain analogous to its action on intractable physical pain. We have seen nothing which might lead to the opinion that any lobotomy improvement is brought about as a by-product of organic deteriorative defects on the emotions or the intellect. It seems more likely that there is a selective abolition of the capacity to maintain unpleasant psychotic tensions. We have seen nothing which remotely resembles "a docile imbecility."

Behavior improvement is reflected in the appearance of the lobotomy patients who gain weight, wear their clothes more neatly, and become more friendly and approachable. The families of chronic patients, especially, are quick to note and appreciate these changes. They can see that the patient enjoys their company and the food they bring him, and they know he is better able to benefit from hospital activities such as walks, entertainments, games, and work of a socializing nature. They prefer to know that he is free of chronic sedation and restraint. One such family wrote: "It is nine years now since he was first admitted to the hospital. His condition was so far gone that we never expected to see such a great improvement in him as we've seen these past four weeks." (This improvement still continues several months after operation. Case No. 249.)

There is much benefit to the morale of various grades of hospital personnel from these therapeutic behavior-responses in previously intractable cases. Only one who has lived in close contact with regressed and disturbed wards can fully appreciate what a difference can result from even minor improvement in certain types of patients, or the vague sense of blame that is involved in therapeutic failure. A physician on such a service points out that the quieting of one chronically-noisy and provocative patient has eased the burden of caring for the entire ward, since this one had always been so effective in "keeping all the rest stirred up."

The stability of this behavior response must still be proved by time, but up to the present we have observed little tendency to relapse in behavior patterns after improvement has once taken place.

When fluctuations in the condition of the patient continue, a better average level of behavior remains.

A description of the means by which these results are achieved will be deferred to the section under procedure, but at this point it should be pointed out that no special facilities have been set up. The work has been carried forward within our usual budget with the personnel previously assigned to the services and under conditions previously prevailing. We believe that the only essential thing which has been changed is the capacity of the patient to profit by these facilities. It thus happens that any description of post-lobotomy care becomes a dissertation on ordinary state hospital procedure.

Procedure

Administrative

Lobotomy is recommended at a formal staff conference, similar to a diagnostic staff meeting, held with one of the authors. After a review of the record and an examination of the patient, recommendations are made and present findings summarized in the record. This helps provide a base line for future comparison and makes available a broader experience for each decision. A letter is then sent to the proper relative inviting personal consultation at a specified time and place concerning the operation. During this visit, the statistical facts on deaths and complications are clearly reviewed, and in old hospital cases, it is stressed that there is only a small likelihood of sufficient remission to allow for a trial of the patient outside the hospital, but that he may be made more comfortable and more able to benefit by various hospital activities. A routine telegram is sent to the family shortly after the operation. In addition to the usual hospital supervision and observation, follow-up of all operated cases, both in and out of the hospital, has been carried out personally by one of the authors.

Choice of Cases and Discussion of Prognostic Factors

Cases are chosen primarily on the basis of their intractable course and their resistance to the usual procedures. Among the chronic patients who, in practice, are almost entirely schizophrenic, the attempt has been made to operate patients presenting those characteristics described under the section on symptomatic changes, aiming primarily at the improved behavior response,

which occurs in about 66 per cent of the cases and accepting the relatively low remission rate of 6 to 20 per cent (Table 2) as a desirable but secondary outcome of the procedure. Comfortable, well-institutionalized schizophrenics have been avoided and very little has been accomplished in the few cases done on the insistence of the family without staff advice.

We have also operated a series of schizophrenics of less chronic hospital residence with consistently favorable results. Because of reports of personality change in the literature, we have proceeded very conservatively, first applying very adequate shock therapy, then waiting a number of months to rule out late response. We have tended to reserve the operation, further, for patients who showed such behavior disorder that there was a serious threat to life (chronic shock-resistant excitement, refusal of food, or suicidal drives, etc.), and have also been inclined to proceed where the patient showed rapid regressive and withdrawal symptoms with massive content and emotional loss of a malignant pattern after failure of adequate shock. This shock-resistant group of less than four years continuous residence includes many re-admissions, and patients with a history of mental symptoms from one to 10 years before admission. They have in general, however, been individuals who had maintained some degree of social and economic capacity until a year or less before hospitalization. This last has been considered to be of great prognostic significance for purposes of anticipating a socially-useful remission.

Certain manic-depressive and involutional cases and other non-schizophrenics are operated when adequate shock has failed, and when long hospitalization has already taken place. Results have been limited (Tables 4 and 5). A very few cases of shorter duration but entirely shock-resistant are also operated; but it seems that in this group adequate shock removes most of the recoverable material from the hospital and failure often occurs (Case 62). A history of preceding psychoneurosis with superimposed schizophrenia was found to be favorable in one case and not in another of somewhat greater duration (Case 64).

A very few patients of obscure mental diagnosis but severe, life-long behavior disorder have been operated with some reduction of aggressive drive. (Childhood schizophrenias?)

Certain individual observations with regard to prognostic factors as judged from the history, may be of interest. A history of

a moderate degree of mental deficiency (moron level, but not imbecile) has been found to be favorable; and a surprising proportion of the good responses after long regressive courses have been in patients with clear-cut histories and findings of basic mental defect. (Cases 6, 50 and 236).

An attempt was made to evaluate the true duration of illness in every case, but of more significance was the duration of total disability as measured by the duration of present hospitalization, the history of productivity in the community and of the unproductive period preceding hospitalization.

Response to previous shock was of some prognostic value. Repeated partial response and relapse in newer cases was found to be favorable; complete lack of any kind of response to adequate shock was unfavorable for remission, although excellent symptomatic results have been obtained where electric shock seemed to have no effect. Chronic cases which had responded with good symptomatic effect to shock seemed to fixate the improvement after lobotomy.

Among individual symptoms, depression has often been found favorable but certain cases have remained surprisingly unaffected. Chronic massive hallucinations seem relatively unfavorable; but good results are seen when they are not of excessive duration (Cases 24, 49, 98), and response has been of such specific nature as to invite further study. Chronic delusions show remission in some cases, and in others seem to lose most or all of their motivation to action. The British report mentions a "washing out" of the emotional drive behind the psychotic content and the final disappearance of the content itself. We have seen something of the same sort, although it must be said that this is not invariable nor does it regularly proceed to completion (Cases 6, 7, 201 and 231).

Operative Procedure

The operative work has been carried out with a standard state hospital set-up, to which has been added a set of neurosurgical instruments, and very recently an electrocautery. Much of the work was done with the electrosurgical attachment on a diathermy machine. Hospital personnel is used throughout, except for the neurosurgeon himself who comes to the hospital twice each week to operate.

Pre-operative medication consists of amytal (gr. 6) on the night before (p. o.). The hair is cut the day before operation and the entire head is shaved and prepared the day of operation (to avoid infection of minor abrasions). Morphine and hyoscine and, in addition, a dose of 300,000 units of penicillin in oil, are given just prior to operation. Anesthesia is intravenous sodium amytal supplemented by hyoscine and morphine. No intubation is practised. Novocain is used locally.

The operation that has been performed in almost all the cases is a combination of the closed method described by Freeman and Watts utilizing the superior approach described by Lyerly.

The landmarks are located as follows:

A point is measured 13 cm. posterior to the glabella. This corresponds to the level of the coronal suture in almost all cases. The incisions are made 3.5 cm. lateral to the midline and at the coronal suture. One additional landmark is utilized. This is a point indicating the lower end of the coronal suture as described by Freeman and Watts, and it is 6 cm. above the zygoma and 3 cm. posterior to the lateral rim of the orbit. A line is then drawn from the point in the midline on the coronal suture to the lower end. This indicates the plane of the coronal suture which is followed in cutting the white matter.

Two vertical incisions are then made approximately 4 cm. long. After the incisions have been made, the coronal suture is identified; and, if it is not seen, the incision is extended until the suture is located. A burr hole is then made with the McKenzie burr. The dura is incised in a cruciate fashion. The superficial vessels are coagulated. Occasionally, if there is a very large vein or plexus of vessels in the operative field, additional bone is rongeured away until a satisfactory avascular area is exposed.

A ventricle needle is then inserted in the plane of the coronal suture parallel to the midline and directed toward the base. The base is usually struck at a distance of 7 to 8 cm. from the dorsal surface of the brain.

The leukotome, which is the Killian elevator as described by Freeman and Watts, is then passed along the superior surface of the ventricle needle. The blade of the leukotome is 6 cm. long, and this is the maximum depth of the cut. Lipiodol, approximately ½ cc., is injected through the ventricle needle as it is being withdrawn. The leukotome is then swung laterally as far as it will go.

Occasionally, if the skull is thicker than usual, a bevel of bone is cut away to enable an additional lateral swing of the leukotome. The leukotome is withdrawn, reinserted in the same plane and swung medially. In the medial direction, the cut is limited so as to spare the gray matter on the medial surface. After both lateral and medial sides have been cut, the field is irrigated. There is usually a small amount of bleeding which is easily controlled by additional coagulation of the cortical vessels. No effort is made to replace the dura or to place anything in the burr hole.

The skin incision is then closed with two layers of interrupted black silk sutures.

Immediate Postoperative Course and Procedure

Postoperatively the first consideration is recovery of consciousness. An airway is kept in place, and routine post-anesthetic care is given. To hasten recovery from amytal we have made use of intravenous seduxin, and benzedrine, and coramine, analeptic drugs which seem to counteract the sedation and are especially valuable when respiration is depressed or color is poor. Parenteral fluids are used as indicated. Post-operative shock as seen after abdominal procedures is not frequent in the postlobotomy patient. Consciousness is fully restored by the evening of the day of the operation if no complications ensue, and within 24 to 48 hours patients are regularly able to be out of bed.

After recovery of consciousness, the next serious consideration is that of post-operative infection, chiefly meningitis and pneumonia. Penicillin in oil is given daily in doses of 300,000 units for several days post-operatively, and the subsequent course is guided by the patient's general condition and especially by the vital signs. In the presence of normal vital signs and a relatively clear consciousness, allowing for post-operative torpor (to be described), penicillin is discontinued in a few days. A rise of temperature to 101, or even 102, on the first post-operative day is considered within normal limits; and on the second day some small amount of fever may persist; but any fever beyond this calls for special attention. A rise of white cells in the spinal fluid on the third or fourth day post-operatively, (cell count of 20 to several hundred) is, we believe, indication of meningeal reaction and calls for the use of streptomycin and sulfanilamide simultaneously with penicillin. This opinion is based on small experience and is subject to revi-

sion at a later time; but, up to the present, we have not had any reason to believe that the operation in itself results in material rise of white cells in the spinal fluid. A secondary rise of temperature after an initial fall is especially suggestive of meningeal infection, and the continued presence of a low grade fever after the third or fourth day may also be a very serious finding, but rather frequently a post-operative temperature of 101 to 102 gradually falls to normal in five to eight days, and is associated with a little more blood than usual in the spinal fluid. Fortunately, the intensive use of antibiotics and sulfanilamide is effective regardless of the location of the infection. We think we have aborted cases of beginning meningitis by the use of these measures.

Operative and post-operative hemorrhage have been conspicuously rare in our series of cases. This is interesting in view of the closed method of operation used. Such hemorrhage was seen only twice in the 350 cases reported in this paper (to which may be added 32 cases which have been done since the material for this work was analyzed). Development of gross focal neurological signs is of the gravest significance, indicating either hemorrhage or infection, and has always preceded a fatal issue. Almost as serious, are the protracted states of low grade fever and organic catatonia which sometimes supervene and which are complicated by a breaking down of skin over the bony prominences with a speed suggestive of some neurogenic factor. The clinical picture in some respects is reminiscent of the rapidly fatal course sometimes taken by untreated paresis. Autopsy in one such case revealed nothing in the brain except a cut rather to the posterior. Three deaths were accounted for by this complication. Recovery of less severe cases has taken place.

In uncomplicated cases, medication may be suspended after a few days. Post-operative inertia, confusion, wetting and soiling, combine with the residuals of the pre-operative psychiatric disabilities to constitute the immediate psychiatric problem. The patient may be allowed out of bed on the second post-operative day. If he does not get up, he is encouraged to do so on the third or fourth day, since it is our impression that convalescence is facilitated by quick mobilization of the patient to combat torpor. Heavy sedation and restraint are avoided as much as possible, and sympathetic management by experienced personnel makes it possible to maintain even severe behavior-problem patients in the acute

hospital ward for a period of about one week. There has been conspicuously little behavior disorder during the immediate post-operative period. Only twice in our series has any serious late complication developed without warning during the first few days of convalescence. For this reason, we feel that an observation period of one week in the hospital service is adequate. Sutures are removed on the third day, at which time the wounds are well sealed-over.

Following the operation, there is normally some degree of torpid restfulness and slowness to initiate action. This is more marked and continues longer in regressed schizophrenics. Such a regressed patient may for days or even weeks, when seated before a tray of food, merely stare at it; but, if his hand is guided to start the process of eating, he will continue and even eat excessively in a rather automatic fashion. "Well-retained" individuals usually show a rapid clearing of their torpid state, and only loss of conversational initiative or defect in finer sensorial testing is to be noted within a few days after operation. Such defect, alarming to a critical observer, has never proved to be permanent.

Wetting and soiling increase markedly in the post-operative confusional period, and the problem is much more prominent in previously-regressed patients. Routine habit-training procedure is immediately instituted after the operation and response has been satisfactory. In rare cases wetting has continued at night for several months but there has been no permanent incontinence in previously clean patients with one possible exception—a regressed, schizophrenic woman.

Such behavior disorders as assaultiveness, suicidal or homicidal tendencies, and noisiness, usually show a rather immediate diminution of intensity, but previously-destructive patients often continue to manifest a restless, vague, emotionless wandering which is similar to their pre-lobotomy behavior. Destructiveness continues but with much diminished intensity.

Often, there is noted an immediate decrease of sustained hate (psychotic), with increase of reasonableness and capacity for affection. On the first post-operative visit, a wife allowed her husband to kiss her for the first time in many months; a brother inquired normally about another brother whom he had hated and against whom he had had a trend for several years; a sister showed more affection to her brother than in years; a son talked with his

mother in a friendly fashion for the first time in a number of months. We do not find an equal diminution of all affective capacity, but, rather a selective decrease in the unpleasant phase of the affective life. The capacity for pleasant reactions seems unimpaired in the immediate, intermediate and final response to lobotomy.

Another reaction of great academic interest is the occasional abrupt disappearance of auditory hallucinations, with the expression of insight which resembles that expressed by a successfully-treated insulin case.

Not infrequently an immediate reaction occurs which appears to be very favorable, but quickly disappears. We have seen such patients again clear after weeks or months, but can make no clear correlation between immediate and late response.

Later Post-operative Course and Procedure

By the end of about a week the patient is ready for return to a psychiatric service. Most of the unregressed, well-retained cases are treated in the shock unit where a ward has been set aside for women and where the men are also collected in a group of smaller size. Here residuals of the confusional states are treated by habit training, etc. Periods of excitement are treated with sedation and in very occasional cases by additional electric shock.

Guidance toward occupation begins early and follows conventional lines. Occupational therapy; ward work; industrial therapy; psychotherapy, especially reassurance; socializing activities; all in proper sequence, form part of the postoperative care. The patients who benefit have previously proved refractory to this program while under various forms of shock treatment in this service.

While the program was developing, and before our procedures had been organized, chronic regressed patients were also cared for in this shock unit, and much of the subsequent program was first evolved under the guidance of the physician in charge of this shock work. The results were highly satisfactory but it soon became apparent that this type of service can absorb only a relatively small number of such chronic regressed cases without suffering an undesirable change in its own character. In a very real way these patients tend to reproduce their old environment and to upset other patients by their behavior. We then found that if the re-

gressed and destructive chronic cases are to be handled in numbers, they are best managed in services where they are known to the employees and where improved condition is really appreciated from the start. Previous interpersonal relationships developed from long association can serve as an important therapeutic factor in this phase of treatment. Anyone familiar with continued treatment wards knows of the understanding and sympathy manifested by the personnel toward patients whom they have come to like in spite of the most difficult manifestations of behavior disorder.

If the patient cannot, for some reason, be cared for in his own service, he can be placed with a group of lobotomy cases in a service prepared to face his behavior disorder; where others will be neither revolted nor antagonized by him.

At this point one may see again the increased capacity of the patient to benefit by the existing hospital facilities. He is kept dressed more easily, is no longer so destructive, and can be taught to keep clean because he no longer manifests an invincible negativism to all training. Now the basic hospital process of upgrading of the patient can begin. Management is similar to that already described for the non-regressed case. The patient is transferred to better wards as behavior becomes such that it will not adversely affect the new ward. When indicated, he is sent to various specialized ward groups such as industrial services.

It seems that as time goes on we shall find an increasing field for family care in postlobotomy rehabilitation. Up to the present, we have preferred to operate on patients who have interested families, but have already had one occasion to place a patient on family care prior to full release. Her own family had lost confidence in the patient and were unwilling to take her until she demonstrated her adjustment outside the hospital. Placement of a patient with his own family seems psychiatrically and socially injudicious if he is not entirely welcome there. The full significance of chronic mental illness and long hospitalization is nowhere more obvious than it is in these late incomplete remissions.

The post-operative course is often slow, and involves a long-term drift in the psychiatric status and more immediate fluctuations in the patient's condition. The general trend, in the first year or two at least, is toward improvement, and favorable change has often been seen during this period in cases who at first seem un-

changed. A mild "slowness" may continue in favorable cases up to the end of the first post-operative year.

There is a period of several months, immediately post-operative, during which longer or shorter periods of manic-like overactivity may take place in a small proportion of cases with singing, euphoric shouting, restlessness and some irritability. The reaction is usually short-lived and responds to sedation, isolation from others and other routine measures. We have, a number of times, used electric shock in such cases and feel that the results are satisfactory. When pre-operative disturbed behavior continues or returns after remission, electric shock may be more effective after the operation than it was before.

Side Effects and Relapses

Since a wide range of side effects, broadly called "personality changes," has been reported in the literature, we have watched our patients very carefully with this question in mind. Only occasionally have we observed anything which might be classed in this category, and always in patients with a chronic schizophrenic history which in itself might very well have accounted for the symptom. Personality changes have been in no way a practical problem with us, either in or out of the hospital.

With the abolition of some characteristics of the illness others, previously masked, may be allowed to appear. Thus mutism and catatonic-like withdrawal or depressive reaction may be abolished, leaving a frank paranoid hallucinatory reaction more clearly expressed than before; or a state of general inhibition may be released, and leave behind the usual simple schizophrenic weakness of judgment, etc. True disinhibition, in the sense of loss of normal inhibitions—apparently closely related to the operation—was seen on one occasion. The case, that of a woman in the involutional period who complained of a compulsive sex drive, is described elsewhere in this paper.

The natural history of the disease itself must be taken into account when one evaluates schizophrenic postlobotomy pictures. A careful reading of Kraepelin's original monograph[3] will show a liberal sprinkling of such descriptions as now are included in the so-called personality changes after lobotomy. P. 192 . . . "there is no question of deliberate endeavor to make good use of or to improve their own condition. They live a day at a time, squander

what they earn, take no thought for the future . . . not infrequently a great need for sleep is observed, also considerable appetite . . .'' and (p. 190) ''. . . weakness of judgment appears as a rule . . . the patients have become incapable of taking a general view of more complicated relations, of distinguishing the essential from side issues, of foreseeing the consequences of their own or other people's actions . . . little inclination or ability to learn anything new, to pursue aims, to carry out a more extended plan . . . 'She has no memory at all when she works'. . .'' and (p. 191) . . . ''Many patients are quiet, taciturn . . . Others on the contrary are childishly intimate, accessible, docile, but not independent.'' Viewed in this perspective it requires the most careful clinical analysis to distinguish which of the so-called personality changes are in reality organic direct effects of the lobotomy and which are merely the release of schizophrenic symptoms previously overshadowed by other disease tendencies of more preponderant weight in behavior. An example of the experience of the families of unregressed patients is described in a letter from a patient's wife, which reads, ''I had read so many strange things about this operation, namely, 'change in personality, loss of sex life and that the patient may become imbecile.' How ridiculous these things are. For the sake of others I wish these rumors could be stopped. I find my husband in fine condition with no change in personality whatever. He is back to work and people tell me they never remember seeing him look so well. . . .''

We have been able to confirm Rylander's statement[6] about the decrease of dreams after lobotomy. Although the majority report no change, or ''I never noticed but I never did dream very much,'' or ''I sleep more deeply,'' certain patients do report that dreams have stopped after the operation. None has described an increase, and there seems a very clear tendency to dream less than before. Also there is a loss of painful ruminative daydreaming which often constitutes an essential part of the picture of the schizophrenic, depressive, or neurotic reaction. Sometimes it is the nightmares of the psychotic period which disappear.

We have twice noticed a tendency to rather childish euphoria and boasting.

True relapses have been relatively infrequent—not above 10 cases, but a considerable number of patients have been removed from the hospital on trial visit when the enthusiasm of the family

required that the patient be tried at home; and, mostly, these were promptly returned although a few still remain at home. The proportion of returns is not excessive nor has there, so far, been any outstanding antisocial behavior nor any difficulty more than would be expected from such a grade of releases.

The incidence of convulsions has been small, almostly entirely in old cases, and largely confined to a few seizures in each case (Table 2).

Discussion and Evaluation

Quantitative evaluation of the release figures in our tables offers considerable difficulty. An accurate method would be to compare these figures with some standardized tables of expectancies of non-lobotomized patients with similar diagnoses, durations of illnesses, equal severity and similar previous treatment. Since this is not possible in the present state of psychiatric knowledge, we have collected certain material which seems to have a bearing on the question, in order to allow for some general orientation.

Speaking of dementia præcox Kraepelin[3] said (p. 186) "I myself found real improvement in 26 per cent of my cases when that of the duration of a few months was also taken into account." He did not say how soon after hospitalization this improvement took place but from what follows, it will be seen this rate of remission cannot apply indiscriminately to schizophrenics regardless of duration of hospitalization, but only to newly-admitted cases. The expectancy of release in hospitalized cases falls precipitously with each year of continued illness and this fact is of the utmost importance in the evaluation of any therapy. Table 8, adapted from Fuller[7] shows that, in a series of 2,481 cases of dementia præcox, 37 per cent reached discharge during 16 years of observation but approximately two-thirds of these had already left after a hospital stay of less than one year. In the second year only a fifth of the discharges took place and the rate of release from among the hospitalized remainder of the patients continued to fall until by the end of 15 years it was in the range of one release per 500 resident patients per year.

There is a considerable difference in the totals as between the figures of Kraepelin and Fuller (26 per cent as against 37 per cent, which is partly explained by a statement of the former concerning differences between himself and his contemporaries (p. 286).[3] "In

Table 8. Total Duration of Hospital Life of All First Admissions 1909-1911 During a 16-Year Period of Observation (Adapted from Fuller as Quoted by Cheney.[7]) (Based on 2,481 Cases of Dementia Præcox)

	Discharged to community	Per cent per year of resident population	Number of patients remaining in hospital
Under 1 year	582	23.45	1,899 at end of 1st year
1 to 2 years	134	7.06	
2 to 3 years	63		
3 to 4 years	30		
4 to 5 years	35		1,377 at end of 5th year
5 to 6 years	9	0.65	
6 to 7 years	12		
7 to 8 years	8		
8 to 9 years	13		
9 to 10 years	8		1,017 at end of 10th year
10 to 11 years	11	1.08	
11 to 12 years	10		
12 to 13 years	12		
13 to 14 years	2		
14 to 15 years	4		935 at end of 15th year
15 to 16 years	2	0.21	
16 to 17 years	1		
Total	936		

this uncertainty about the delimitation, the statements of different observers can, in the first place, not be compared at all, not even the diagnoses of the same investigator at different periods of time separated by a number of years." Dayton[8] in the modern literature has pointed out that this variability in diagnosis still continues (p. 367). He says "Practically all of the statistics in mental disorders have revolved about the subject of diagnosis. A glance at State statistical reports or individual hospital reports will show how predominant has been the interest in the psychoses. Unhappily, variations in diagnosis between hospitals and in the same hospital from year to year have nullified, to a large extent, the usefulness of the individual hospital data on the psychoses and related subjects." With this in mind we have assumed that the true proportions of the various functional psychoses remain more constant than does their formal diagnostic division, and we have constructed a table of 1,000 successive discharges from Pilgrim State Hospital including all functional cases (Table 9). Since this contains a larger proportion of the so-called "benign" diagnoses than does our operated series it seems to offer a type of control

for the latter. One should point out that these figures should be interpreted with the reservation that the bulk of admissions to Pilgrim State Hospital are by transfer from a psychopathic hospital which discharges cases of the most rapid remission.

Table 9. 1,000 Successive Discharges from Pilgrim State Hospital During the Period, February 1948 to June 1949. All Functional Diagnoses Included (Except Psychopathic Personality). Classified According to Duration of Present Hospitalization Before Discharge

Duration of hospitalization	Number of cases released in period of 16 months	Census from which drawn	Annual percentage
Less than 6 months	626	1,400 functional* admissions per year	40.7
6 months to 1 year	211		17.7
1 to 2 years	77	498	11.59
2 to 3 years	27	350	5.78
3 to 4 years	14	278	3.78
4 to 5 years	9	336	2.01
5 to 7 years	11	555	.49
7 to 10 years	17	891	.14
10 to 15 years	3	1,736**	.13
Over 15 years	5	2,309**	.16

*Approximate.

**Admissions by transfer from other hospitals.

Regardless of the various differences of time, place and treatment methods it is of interest to see that our release figures show the same drop with the passage of time as was shown by Fuller. The totals of early releases are considerably higher in our table due in part to the inclusion of benign diagnoses, and in part to the use of shock therapy. By the end of a few years, Fuller's table and ours show a degree of agreement even to the rate of release per year in hospitalized cases.

Kraepelin[3] describes the situation as follows (p. 210) ". . . so much may perhaps be said, that as a rule if no essential improvement intervenes, in at most two or three years after the appearance of the more striking morbid phenomena, a state of weak mindedness will be developed which usually changes only slowly and insignificantly. But often enough the unmistakable symptoms of dementia appear already with the first year. . . ." The figures presented in Tables 8 and 9 seem to bear this out quite clearly, even when all "benign" cases are included.

We were unable to follow a given group of patients through the hospital for 16 years as Fuller did but derived Table 9 from a

series of cases discharged during a 16-month period. This indicates that 626 of the discharges were cases of less than six months hospital residence, a release rate of 40.7 per cent per year. By actual count, we found that there are in the hospital at this time 498 patients of functional diagnosis with a hospital life of one to two years. We assume that this has been the average number of patients of this category in the hospital during the period investigated and find that in 16 months 77 such cases were released, giving an annual rate of 11.59 per cent. The rest of the table of percentages was derived in the same manner and offers an interesting comparison with that of Fuller. The range of release percentage after lobotomy is far higher than any figures after comparable hospital residence. Nowhere in non-lobotomized cases do we find a release rate of 44 per cent after six months to three years of stay in the hospital, or 20 per cent at four to seven years, or 6 per cent after seven years (Table 2). It is true, however, that these lobotomy figures are based on patients still in convalescent care and might thus be considered incomparable with discharge figures, which may fall by the end of the year. We have no reason so far, to anticipate any marked fall. Indeed, 23 of the 29 released in the first hundred cases have already been discharged (Table 1).

To allow some sort of comparison with patients now on convalescent care, we have also drawn up Table 10 to indicate the duration of hospital life of 1,046 patients now in convalescent care from Pilgrim. Inasmuch as 67 per cent of the male cases and 82 per cent of the female cases are of functional diagnosis, this table may be of some interest, although it was not practical to make a further count of functional cases only. The close agreement of the pattern of release with that already derived from other sources is to be seen at a glance.

In all the foregoing calculations the factor of true duration of symptoms has been neglected for the more easily ascertained one of the last residence in a mental hospital, a figure which is accurately recorded, and has a close correlation with expectation of release. The factor of previous hospitalization has also been neglected, and only the last continuous hospitalization has been used. Several reasons lie behind the apparent failure to try to control variables which might be considered of importance. Most decisive is the impossibility of dating the true onset of symptoms in many cases, even when one makes a careful and serious attempt.

Table 10. Distribution by Date of Present Admission of 1,046 Patients on Convalescent Care in July 1949 (Pilgrim State Hospital). (Released During Previous Year.)

1949	156	1939	1
1948	676	1938	2
1947	127	1937	3
1946	33	1936	2
1945	15	1935	0
1944	16	1934	0
1943	6	1933	2
1942	5	1932	2
1941	4	1931	0
1940	6		

In the main, the stated duration of illness in hospital records is quite unreliable and on re-examination—which we have often carried out—we have found that duration reports show a variation of several years, depending on the informant's attitude toward the patient, the illness, and the hospital. Even where the onset can be rather definitely fixed, it does not correlate completely with the final result as to release. The prognosis seems better determined from a history of the previous type of symptomatology, duration, and degree of social and economic disability. Catastrophic courses in cases of recent onset are all too frequent, as can be surmised from the fact that all chronic cases were once recent ones. On the other hand, one often sees patients with what seems to be a long history of symptoms, even of delusions and hallucinations, who still regain some degree of social usefulness and personal comfort outside a hospital. In these cases the preceding illness may have been intermittent. To some extent, the question resolves itself into a consideration of the proper aim of the therapy. If we are willing to carry out a therapy whose purpose is the practical one of returning the patient again to the community in a state of comfort and usefulness to himself and others, then figures of successful releases are a useful measure. The patient, his family and the community are likely to consider such a release as a highly desirable achievement. At worst it permits the patient to spend a larger proportion of his life in remission and a smaller proportion in the hospital.

One difficult question remains to be considered. How soon may one decide that the condition of any given patient warrants the consideration of lobotomy, given the various risks involved in the operation and those involved in the continuation of the illness?

After failure of shock therapy, does subsequent prognosis remain unchanged, does it improve, or does shock rapidly remove the recoverable cases, leaving an unrecovered and perhaps less recoverable residual for further procedures? Since all lobotomies of less than several years of hospital residence have been done on shock failures this is particularly important.

In order to secure information bearing on this, we have taken a consecutive series of 100 shock failures of the year 1944-1945 and traced their subsequent course. It should be stressed that these patients were all chosen for shock therapy on the basis of their supposedly favorable prognoses and that the choices were made by one of the authors on the basis of the prognostic criteria stated generally in this paper.

It will be seen that only 13 out of 100 apparent shock failures were later able to achieve a known discharge from convalescent care during a period of between four and five years of observation (Table 11). Table 12 shows how soon most of the late or spontaneous remissions occurred after shock had apparently failed. Eight occurred within six months after termination of treatment, and within the first year of the patient's hospital life. This indicates that one need not wait for many months after termination of shock treatment in the expectation that lobotomy will not be necessary and that spontaneous remission can be expected to take place.

Table 11. Present Status of 100 Successive Shock Failures of the Year 1944-45

Years after termination of shock	1st	2nd	3rd	4th	5th	Total cases (1949 status)
In hospital	82	73	66	65	64	64
Transferred to other hospitals	4	3	1	0	0	8
Deported	1	0	2	0	0	3
Escaped	0	1	0	0	0	1
Transferred to tuberculosis center	3	1	3	0	0	7
Dead	2	1	0	0	1	4
Discharged from convalescent care from Pilgrim	8	3	1	1	0	13*

*A table of the 13 patients who were discharged from convalescent care after having been considered shock failures follows:

It appears that no matter how one measures prognosis as to release, one fact comes out in a very constant fashion; most patients who will leave the hospital do so very soon after admission; and, after the first six months or one year, one sees a very rapid decline

in release figures. In addition the general quality of spontaneous late remission is of poorer grade than is the quality of early remission and all too often is marked by varying degrees of residual defect and disability.

Table 12 illustrates another significant fact with regard to prolonged hospitalization for mental illness; that hospital morbidity and mortality are to be considered. Malzberg[9] has shown that there is an increased mortality in state hospital population as compared with the general population of the state, when all necessary corrections are made. The 1930 death rate of 32.4 for dementia præcox was considered to be 2.3 times that of the general population. It ranged from 18 times normal at ages 15 to 19 to nine

Table 12. Duration of Hospitalization and Duration of Post-Shock Observation in 13 Shock Failures Later Released and Discharged

Duration of post-shock hospital residence	Cases	Duration of total hospital residence	Cases
0-3 months	2	0-6 months	1
4 months	1	8 months	4
5 months	3	9 months	1
6 months	2	10 months	1
13 months	1	11 months	1
17 months	1	15 months	1
19 months	1	19 months	1
*29 months	1	23 months	1
**35 months	1	*40 months	1
		**81 months	1
Total	13	Total	13

*Case of psychoneurosis.

**Case of involutional melancholia treated after over 40 months of hospital residence.

times normal at 20 to 24 and was 1.3 times normal at 70.74. By 1946 the death rate in dementia præcox had fallen to 24.6[10] (p. 179). Since the general death rate has also fallen, it seems logical to assume that the present mortality is still higher than for the normal population. Kraepelin[3] has said "by the psychic disease itself conditions are created which are fitted to increase the mortality . . . bodily inactivity . . . bodily suffering caused by chance injuries . . . states of excitement . . . restlessness and obstinacy . . ." Even more significant is the mortality figure for the so-called benign psychoses. For manic-depressives, Malzberg[9] found the death rate 77.1 in 1930, or 5.7 times that of the normal popula-

tion. By 1946[10] (p. 179) this had fallen to 37.9. Shock therapy has been responsible, in part at least, for this fall; but an increased death rate still remains a factor in all calculations of risk involved in intractable mental illness in the hospital, whether of "benign" or malignant pattern. The incidence of pulmonary tuberculosis, although much reduced in recent years, also must be considered when one is weighing the various risks.

All the foregoing statistical conclusions, well confirmed by experience, seem to leave little doubt as to the heavy price of chronicity in mental illness of the grade which requires state hospital residence, and indicates that the price of lobotomy is probably much lower.

We have omitted discussion of social factors in the picture of continued hospitalization. With the passage of time beyond a year the patient's contacts with the community often weaken, his technical skills become blunted or lost, and he tends to lose courage and confidence. The process of institutionalization is all the more pronounced because in the main the personality of schizophrenics is basically weak and given to withdrawal and surrender. It follows that any procedure which allows us to make use of the therapeutic effect which comes from return to a normal environment may in itself be feeble, but still can be an essential component in the final reintegration of a personality. Perhaps the situation is analagous to the one which Paré tried to describe when he said, "I dressed his wounds, and God healed him."

Summary and Conclusions

Prefrontal lobotomy was first tried at Pilgrim State Hospital on March 20, 1945. On May 13, 1947, the series of 350 which forms the subject of the present report was begun. The first 100 cases were completed about one year later and of these, 29 are now at home (23 of them already discharged). Of the second hundred, completed in the six-month period ending December 28, 1948, there are now 28 cases at home. The third hundred, completed May 3, 1949, has as yet resulted in only eight releases, since improvement and placement in the community have occurred largely in the period of four to 12 months after operation. By official diagnosis 90 per cent of the first 200 cases were dementia præcox; 4 per cent, involutional psychoses; 3 per cent, manic-depressive psychosis; and all others, 3 per cent. The releases by diagnoses in this same group

were, just over 86 per cent for dementia præcox, just over 6 per cent for involutional psychosis, just over 3 per cent for the manic-depressive psychoses, and about 1½ per cent for all others. Non-schizophrenic diagnoses represented only 10 per cent of operated cases, and 13.7 per cent of releases. Shock-resistant, non-schizophrenic cases did not prove to be strikingly more amenable to lobotomy than did shock-resistant schizophrenics. Analysis of the figures indicates that the release rate for patients of three years or less of hospital residence immediately before operation was about 43 per cent, while for those of four to seven years it was 20 per cent and for those of over seven years duration it fell to slightly over 6 per cent. It was also found that the quality of remission was in general less satisfactory in the older cases; and the degree of productivity fell in this group as compared with the newer cases. Mortality was less than 2 per cent in the first group and just over 7 per cent in the second, while it was just over 8 per cent in the oldest group. The incidence of convulsions was also lowest in the newest group. In spite of the fact that lobotomy tends to be marked by more complications and produces remission in smaller numbers and of poorer grade as duration of illness in the hospital increases, there is a clear-cut behavior response in even the very old cases. This effect is seen in about two-thirds of the patients who remain in the hospital and covers the entire range of chronic serious behavior disorder. Improvement is of slow development and seems to be quite stable. Assaultiveness and negativism are most strongly affected while idleness and unproductivity are least improved. The effect seems to be a real therapeutic one and seems to be due to the production of an increased capacity to benefit by standard hospital therapeutic procedures.

An attempt was made to evaluate the foregoing results in the light of certain available statistics. A series of 100 shockfast, recently admitted, functional cases of the year 1944-1945 was reexamined with regard to present status. Sixty-three were still in the hospital, four were dead, seven had contracted tuberculosis and 11 had been sent to other mental hospitals. There were 13 late remissions, of which eight had occurred in the first six months after shock, and none more than three years afterward. No schizophrenic remission took place more than 19 months after shock was terminated. Several series of figures are submitted to show that in non-lobotomized cases the great bulk of releases from the hos-

pital takes place in the first year after admission (62.6 per cent of 1,000 recent successive Pilgrim discharges took place after less than six months and 21.1 per cent in the period from six months to one year). In this series, another 7.7 per cent of discharges came after two years of residence, and prognosis rapidly deteriorated further after that. In addition, continued mental illness in a hospital carries with it an increased morbidity and mortality which seem to outweigh the actual morbidity and mortality which results from lobotomy, even if one does not take into account the social and economic loss involved in hospitalization. This procedure, which has a therapeutic effect on old cases, is vastly more effective on newer ones.

Based on all the facts cited, the conservative course seems to be to consider prefrontal lobotomy when it becomes clear that the usual procedures, including adequate shock, have not been effective after proper trial and adequate observation for late response. Toward the end of the first, or the start of the second year of continuous hospitalization, it can often be predicted that the patient is suffering from an illness of severe prognosis. We find much truth in the Kraepelinian statement,[3] ". . . Often enough the unmistakable symptoms of dementia appear already within the first year" (p. 210).

Behavior of such a nature as to threaten life directly or indirectly, if it is not amenable to shock, is considered to be further indication for lobotomy, as is the rapid development of massive, malignant schizophrenic signs in spite of shock treatment. In addition, lobotomy finds indications among patients who, because of chronic schizophrenia, are no longer suitable for shock. Here operation produces only a limited number of social remissions of incomplete quality, but a very good proportion of apparently permanent behavior improvements, most marked where the behavior is most severe. In spite of the theoretical and practical significance of such responses it does not seem that an effective therapeutic procedure should be reserved for such cases, or withheld until such chronic states develop.

Postlobotomy personality change has often been mentioned as a drawback to the procedure but it has not been found to be a practical problem in our series. At worst, such effect can be said to have occurred in no more than a fraction of 1 per cent of our cases, and even here various interpretations are possible. Up to the

present time we have seen no evidence of late deteriorative effects. The chief disadvantage of the procedure seems to be that it fails to produce any improvement in about 25 per cent of the operated cases and produces only a limited improvement in somewhat less than half of the patients. In spite of its limitations the operation seems to be therapeutically active and fills a real need while we await a better treatment.

Case Reports

We cite some of the cases studied.

Case No. 3. This woman, born in 1918, was backward in school and a childhood behavior problem; there is a vague history of chorea at the age of 10; and she spent a period at the Angel Guardian Home. Admitted to Pilgrim State Hospital in 1936, she was diagnosed psychosis with psychopathic personality. There were long periods of extreme motor overactivity; she was resistive and was known as homicidal for years, with planned attacks. Prefrontal lobotomy was performed on June 10, 1947. The patient is still withdrawn and sullen but no longer seriously assaultive and is out of a camisole after years of restraint. She is idle but needs no sedation.

Case No. 4. This woman, born in 1898, was admitted to Brooklyn State Hospital in 1936, where she was diagnosed as dementia præcox, catatonic type. She was transferred to Pilgrim State Hospital in 1937. Since 1940, she was assaultive and noisy; she wet and soiled and was a feeding problem. Prefrontal lobotomy was done on June 10, 1947. She is now obese, quiet, smiling, friendly, does a small amount of work. There is massive regression and chronic hallucinations, but she is clean.

Case No. 6. This man, born in 1919, has an I. Q. of 88. From 1935 to 1937 there was a simple schizophrenic tension state. In 1938, there was hospitalization and release. Admission to Pilgrim State Hospital was in 1939. The diagnosis was dementia præcox, hebephrenic type. There were 13 metrazol treatments with no effect, and, in 1940, 20 electric shocks with no effect. For years, he was assaultive, regressed, had filthy habits but did not wet or soil. He continually required barbital sedation. In 1946, there were 29 "symptomatic" electric shocks. Prefrontal lobotomy was performed on June 30, 1947, followed by slow, consistent improvement. He was released September 7, 1947, free of hallucinations,

quiet, odd, bashful, manneristically polite. During a year on convalescent care, there has been gradual improvement. He is more "free," and is able to work as a delivery boy in the shop where his father worked. At discharge, there was a surprising degree of clearance of "primary" symptoms, still a residual defect of mild degree, some insight, but a basic intellectual limitation also was obvious. There is no evidence of psychotic content on examination or in behavior.

Case No. 7. This woman, born in 1887, had a psychotic attack during early adult life with a remission. She was admitted to Pilgrim State Hospital May 1, 1940, diagnosed manic-depressive, depressed. Treated by one of the authors during the next year with repeated courses of electric shock and metrazol, she showed no response. She was highly agitated and depressed and also actively hallucinated. During intervals, there were brief flashes when she played the piano (previously she had been a concert pianist and a woman of culture). For seven years, there was a history of constant voices, agitation and depression. Lobotomy was done on July 8, 1947, with a striking relief of tension and depression. Slow improvement followed, with voices "occasionally." After considerable doubt on the part of her family (because of a social problem), she was removed on convalescent care May 2, 1948. At first, there was marked motor restlessness which gradually improved. She now makes excellent social contacts, reads several books a week, plays the piano with much of her previous skill, practises assiduously. She talks intelligently. There is still some excess of motor drive and of emotionality, and there are residual voices. She has insight; and her comparative state is strikingly better. She feels marked relief. Recent contact (in August 1949) indicates the patient has made some further gain.

Case No. 24. Born in 1908, this woman had her third hospital admission on November 25, 1946. She was diagnosed dementia præcox, hebephrenic. She probably had been ill since 1942. She had "adequate" shock treatment without response and remained highly disturbed. She was physically powerful and a serious problem. Lobotomy was done on October 22, 1947. She was disturbed afterward and had electric shock with good response. Released on March 28, 1948, she was better than in years and was discharged March 28, 1949. She seems to be recovered. Her husband finds no trace of difference from her "normal" level.

Case No. 31. Born in 1893, this woman was admitted for her third hospitalization to Pilgrim State Hospital on April 25, 1946. Her diagnosis was manic-depressive, manic, and she was completely refractory to shock. She was highly disturbed and her physical condition was poor. Lobotomy was done on December 9, 1947. There was a rapid response, and she was released April 4, 1948. She had an uneventful year on convalescent care, with apparently complete remission. She had been known during previous admissions to one of us who found her more emotionally stable this time than he had ever known her to be.

Case No. 33. This woman, born in 1913, was hospitalized March 11, 1947 with a diagnosis of dementia præcox, catatonic. She was highly disturbed and suicidal. (There was a homosexual conflict.) She gnawed off the anterior part of her tongue. Shock treatment was without effect. Lobotomy was performed on December 6, 1947 with a rapid response. The patient was released February 29, 1948 and discharged one year later, apparently in complete remission. She is working with no trace of defect.

Case No. 38. Born in 1923, this man was admitted to Pilgrim State Hospital on February 18, 1942. The diagnosis was dementia præcox, catatonic. There was no reaction to adequate therapy; he was subsequently regressive, disturbed and hallucinated. Lobotomy was performed on January 16, 1948, followed by gradual improvement in behavior. The patient was released on convalescent care March 14, 1948. At home, he was somewhat childish but in the main well behaved. He is idle, requires some slight supervision and is dependent. There is a defect state with no active psychotic content. Recent contact (July 1949) indicates some slight further improvement. His parents are grateful, since they had never been able to adjust to the idea of leaving him in the hospital, and yet could not manage him at home before the lobotomy.

Case No. 49. This man, born in 1922, had had a previous attack at Pilgrim State Hospital when he was treated by one of the authors. There was a good remission with a relapse. He was readmitted June 22, 1945, after which there was failure with both insulin and electric shock. Lobotomy was done on February 19, 1948, after the patient had been in a withdrawn state, actively hallucinating for more than a year. There was striking improvement. The patient described his previous hallucinations with insight—as happens after insulin. Released on convalescent care April 18,

1948, he was discharged one year later. He was well-adjusted, working, without apparent residual defect; but he began drinking and is said to have indulged in marijuana. There was a full relapse and he was re-certified.

Case No. 50. Born in 1919, this mentally-defective man (moron) was admitted to Pilgrim State Hospital on June 5, 1936 and was diagnosed dementia præcox, hebephrenic. He became regressed, wetting and soiling, and was destructive, one of the most difficult chronic problems of a regressed service. Lobotomy was performed on February 19, 1948. There was marked improvement with some residual defect. The patient was released July 18, 1948. Well-behaved at home, he worked in a protected location as a stone-cutter. He had a disturbed episode with return to the hospital on May 10, 1949. Here he is quiet, clean, withdrawn, does some work on the ward, and is not hallucinated.

Case No. 59. Born in 1919, this woman had a severe facial burn in early life. After previous hospitalization, she was readmitted to Pilgrim State Hospital on December 23, 1946. There was no response to "adequate" shock (20 electric shock treatments and 40 insulin comas) and no response to the symptomatic use of electric shock. This patient was in continual restraint because of a strong homicidal drive; she complained of a compulsion to kill and made planned homicidal assaults. She was actively hallucinated and unapproachable. Lobotomy was done on March 16, 1948. There was immediate cessation of assaultiveness and no apparent hallucinations. She was still withdrawn. After slow improvement in the service she was originally on, she was released from this service February 20, 1949. She now makes a good adjustment, is working, is free of psychotic content. Her conversation is brief, quiet, friendly, with some emotional blunting; she plans to complete facial plastic surgery.

Case No. 60. This woman was born in 1891. Her first hospitalization was in 1944. There was electric shock with remission; she was readmitted in 1945 and released again. Finally admitted to Pilgrim State Hospital on October 6, 1947, she was diagnosed dementia præcox, paranoid. There was no response to electric shock; she continued to be noisy, disturbed and hallucinated. Lobotomy was done on March 16, 1938, with a good response soon afterward. The patient was released June 6, 1948, in good condition, free of psychotic content.

Case No. 62. Born in 1903, this man was admitted to Pilgrim State Hospital on September 22, 1947 with the diagnosis of dementia præcox, paranoid. There were several courses of electric shock with a temporary remission at first and later no response. There was refusal of food, depression, depressive delusions, and some depressive hallucinations (there was a "syphilis" delusion). Lobotomy was performed on March 23, 1948 because of the apparent danger of suicide. There was a brief partial remission, with a full return of symptoms later. There was some improvement in the patient's general state of tension and in his appetite, but the basic depressive-hallucinatory, self-debasing reaction was not influenced.

Case No. 64. This patient, born in 1914, had a life-long compulsion neurosis with spasmodic torticollis. He had years of private psychiatric care. His third admission to Pilgrim State Hospital was on June 6, 1946. The diagnosis was dementia præcox, paranoid. There was no response to "adequate" shock treatment. The man had hallucinations, delusions, was disturbed in behavior, withdrawn, displayed resentment and severe chronic "paranoid" tension. His tic was exaggerated to a torsion spasm of the entire body. (A degenerative disease was suggested at the general staff conference.) Lobotomy was done on March 25, 1948, with immediate improvement, and release on June 20, 1948. The patient soon returned to work, making as much as $100 weekly as a skilled worker in the needle trade. There was some faint residual of the tic (the patient turns his face to one side at times as he talks). He is "well-retained" and intelligent, and is still concerned about the tic.

Case No. 65. This woman, born in 1908, was admitted to Pilgrim State Hospital on February 24, 1944, diagnosed dementia præcox, paranoid. In spite of shock treatment, she remained severely disturbed and suicidal; she escaped twice. There was a marked homosexual conflict with strong self-destructive tendencies. The patient had a network of scars about her lips from continual gnawing, was always in restraint. Lobotomy was done March 30, 1948. She was released August 8, 1948. She is now working, self-supporting, and in good remission with some residual "blunting," and was discharged August 8, 1949. Her family reports "no change of personality."

Case No. 98. Born in 1902, this woman had her first psychotic attack in 1945, with remission after 10 electric shocks. Her second attack was precipitated by her husband's death in 1946. Admitted to Pilgrim State Hospital June 24, 1947, she was diagnosed dementia præcox, paranoid. There was no response to 30 electric shock treatments. Insulin was not used because of her age and physical condition. She remained withdrawn, hallucinated, delusional, refused to believe her husband was dead; her reactions were emotionally inappropriate. Lobotomy was done on June 1, 1948 with prompt response, and she was released on October 3, 1948. She is now self-supporting, pleasant, free of psychotic content and remembers her previous complex paranoid ideas as "imaginations." Her personality seems unimpaired.

Case No. 114. Born in 1921, this woman had been diagnosed as a tension neurotic. She was not influenced by shock treatment. On a re-admission to Pilgrim State Hospital on October 23, 1947, she was diagnosed as psychoneurotic. She was disturbed, with rapid deterioration of her physical condition, and compulsive screaming; she beat herself against the walls. She was covered with ecchymoses. Lobotomy was done on July 2, 1948 and she was released on September 19, 1948. She is again visiting a psychiatrist, complains that the lobotomy should not have been done, "the effect did not last," but she is keeping house again for her husband.

Case No. 130. Born in 1903, this patient was admitted to Manhattan State Hospital in 1935 and sent to Pligrim State Hospital by transfer on April 7, 1936. He had a history of epileptoid seizures. From the time of hospitalization, he was consistently hallucinated, delusional, withdrawn, irritable and assaultive on little or no provocation. He fractured the nose of a physician attending him for a physical ailment in 1936. This man's speech showed hebephrenic scattering, but he remained neat and a good worker. Lobotomy was performed on July 30, 1948. Since the operation, this patient has been mild, pleasant, and quiet. He continues to be a good ward worker and is no longer under "explosive paranoid tension."

Case No. 146. Born in 1914, this patient had a psychotic attack in 1938 and 1939, another in 1940 and one in 1942. She was admitted to Brooklyn State Hospital in 1942, diagnosed dementia præcox, catatonic. Metrazol treatment had no effect. She was sent to

Pilgrim State Hospital by transfer in 1942. Electric shock treatment at Pilgrim had no effect. She remained assaultive, noisy, disturbed, regressed, spoon-fed, exhibitionistic. "Symptomatic" shock therapy was given in 1947 with some improvement. Ward notes are: "Eats better, will wear clothes but still refuses contact and shows marked aversion reaction." Lobotomy was done on September 3, 1948 and was followed by gradual improvement. She was released on April 16, 1949 and shows a very surprising degree of reintegration. She lives with her family, cares for her own child (she is divorced); her speech is clear, her manner friendly; no psychotic content is noted on examination or indicated in her behavior. There seems to be residual simple schizophrenic emotional dulling and a "personality weakness" of mild degree.

Case No. 169. This woman was born in 1919. Her last year of productive work was 1939. There was a psychotic attack in 1941, with hallucinations and delusions. Insulin was given, with a favorable response. After an attack in 1942, electric shock was administered, with favorable response. Admitted to Pilgrim State Hospital in 1945, her diagnosis was dementia præcox, catatonic. Electric shock was without benefit; her behavior was disturbed. In 1947, there was "symptomatic shock treatment" with improved behavior but residual hallucinations. The patient became a ward worker. Lobotomy was performed on October 26, 1948, followed by a quick clearance of hallucinations, which were described with insight like that shown by insulin-treated patients. She was released on May 11, 1949. She is making a good adjustment with some mild personality loss.

Case No. 201. This man of 56 had a life-long history of jealousy, with delusions of infidelity for "a number of years." Depressive and paranoid features of character had been more marked since 1946. He was at work until his hospital admission in 1948. The diagnosis was involutional psychosis, paranoid type. The man was agitated, hallucinated vividly, and was withdrawn. There was no reaction to two courses of electric shock therapy. Suicidal attempts were feared. Lobotomy was done on December 12, 1948, with quick improvement in the patient's attitude. His tension gone, he began to work efficiently in the hospital bakery. He was released in care of his son on June 19, 1949 and has been working as a baker since. His wife is still unwilling to return to live with him because of his long history of mental disturbance.

Case No. 231. Aged 57, this man was diagnosed dementia præcox, paranoid, onset "more than 10 years ago." There were delusions of persecution, economic incapacity, withdrawal from the family, letters to authorities. He was admitted to Pilgrim State Hospital in 1947. In the hospital, he was furiously resistive, actively hallucinated, resentful, grandiose, unapproachable. Attempts to administer electric shock resulted in such combat that cardiac collapse was feared, in view of his age. Finally, he went on a hunger strike for several months and resisted tube-feeding so violently that this procedure was undertaken very reluctantly. Death seemed likely. Lobotomy was done on February 8, 1949, followed by the immediate cessation of the hunger strike. The patient admitted that he had been "imagining things." He became friendly and approachable. On close examination, residual psychotic content was noted. There was cessation of paranoid letter-writing. This man was released June 4, 1949. On first report, he was comfortable, but economically dependent. He was well-behaved. "No loss of intelligence in conversation" was observed, but "no will to work."

Case No. 236. This man, born in 1920, had a psychotic attack in 1939, and responded satisfactorily to 44 insulin comas. There was a relapse and admission to Pilgrim State Hospital in "waxy catatonia" in 1940. In the years which followed, this patient was consistently one of the most severe behavior problems in a regressed male service, aggressively homosexual, out of contact, noisy, disturbed, overactive; he wet and soiled. Lobotomy was performed on February 15, 1949. The patient returned to a regressed service, showed slow improvement. He was clean, pleasant, but mentally defective (a moron). His speech was clear but brief. On the insistence of his parents he was released on June 15, 1949 but returned after a few weeks because of restlessness and poor judgment. There is no severe behavior problem, but he is hebephrenic —silly. He is now clean, quiet, passive, well-behaved, probably hallucinated, speech brief but rather scattered, but he is well-informed on current baseball scores, etc.

Case No. 249. Born in 1923, this patient was admitted to Pilgrim State Hospital in 1940. For eight years he was one of the most severe behavior problems in a regressed service, destructive, disturbed, regressed, wetting and soiling, actively hallucinated, aggressively homosexual. In 1948, there was a series of 48

"symptomatic" shock treatments with no apparent effect. Lobotomy was done on March 4, 1949. The patient was returned to a male, regressed, disturbed service where he became quiet, clean, pleasant and a good worker, with no apparent hallucinations at this time.

Case No. 268. Born in 1888, this woman is described as having been "always nervous," a condition which became more marked in 1931. In 1938 her husband had to leave his work as an employee of a state hospital to care for her. There had been no remission since. In 1941, there was further intensification of symptoms; and in 1945, she was admitted to a private sanatorium, and in 1946 to Kings Park State Hospital where she received shock with little effect. In 1947 she was again at Kings Park State Hospital where she had 20 electric shock treatments with no effect. Further shock was given on an ambulatory basis by a private psychiatrist. There was persistent anxiety and tension of neurotic-like pattern, but of very great intensity, with nightmares, insomnia, anorexia, a subjective sense of confusion, and depression. There were no delusions or hallucinations. This patient was admitted to Pilgrim State Hospital in 1949, specifically for the lobotomy operation. Her diagnosis was psychoneurosis. Lobotomy was done on March 25, 1949 with prompt and satisfactory relief of tension. The nightmares are gone; her appetite is better; and there is gain in weight. She was released on convalescent care August 7, 1949.

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A PRELIMINARY STUDY OF THE HYPNOTIZABILITY OF PSYCHOTIC PATIENTS*

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This paper is a preliminary report on the hypnotizability of psychotic patients. Little has appeared in the literature on the subject. Statements on the hypnotizability of psychotics range from conclusions that psychotic patients are impossible subjects for hypnosis in the older literature to more recent, but by no means contemporary, reports that psychotics can be hypnotized. There have been no conclusive studies attempted in this field; and, to gain an idea of the problem involved, an attempt was made to test the hypnotizability of a random sample of 50 patients on the admission ward of a large state hospital. The only specific criterion for selection was the patients' knowledge of English. No attempt was made with comatose patients. The patients ranged in ages from 20 to 95. They fell into 14 diagnostic categories; 18 patients were carried under functional-psychosis diagnoses; 32 fell into the organic psychotic group. Some were seen in restraint, while others were bedridden, interviewed on open wards. The largest number were ambulatory and were seen in a private room. Thirty-seven of the patients were males; 13 were females.

The technique followed classical methods. The patients were placed in a supine position in a well-lighted room. The manner of induction was kept as standardized as possible within the limits of the individual situation. No particular attempt at privacy was made. The physician doing the hypnosis sat in a chair by the side of the patient. Usually from two to five physicians observed the procedure. When only one physician conducted the interview, nurses and attendants were frequently observers. Contrary to general practice, no elaborate attempts were made to explain the procedure beforehand. Many patients received no explanation at all. Others were told they were to receive a relaxing treatment, still others that the procedure was an examination or a test. No preliminary maneuvers were attempted. A standardized typewritten sheet was read to the patients. As the individual situation developed, changes and amplifications were introduced of necessity.

*The authors wish to express their appreciation to the members of the staff of Manhattan State Hospital who provided much constructive criticism in the course of this work.

For example a catatonic, whose eyes were shut, could not be told that his eyelids would become heavy and soon close. The written passage used was the non-authoritarian method as described by Kraines (Kraines 1941). The majority of cases were tried with the non-authoritarian technique, however more authoritarian methods were utilized in a number of cases where a more subtle approach appeared pointless. No more than two attempts were made with an individual patient. The actual interview never exceeded 30 minutes. The actual time for induction of hypnosis averaged about three minutes; with a difficult subject, up to 10 minutes was spent on the attempt.

The criteria for the stages of hypnosis were those of Davis (Davis and Husband, 1931) as outlined in the Davis Hypnotic Susceptibility Test. It is important to note that the categories or stages of hypnosis are arbitrary and at best crude; but some methods must be used if only for descriptive purposes.

The Davis Hypnotic Susceptibility Test

Stage	Depth	Score	Objective symptom
0	Insusceptible	0	
1	Hypnoidal	1	
		2	Relaxation
		3	Fluttering of lids
		4	Close of eyes
		5	Complete physical relaxation
2	Light trance	6	Catalepsy of eyes
		7	Limb catalepsies
		10	Rigid catalepsies
		11	Anesthesia (glove)
3	Medium trance	13	Partial amnesia
		15	Post-hypnotic anesthesia
		17	Personality changes
		18	Simple post-hypnotic suggestions
		20	Kinesthetic delusions; complete amnesia
4	Deep trance	21	Ability to open eyes without affecting trance
		23	Bizarre post-hypnotic suggestions
		25	Complete somnambulism
		26	Positive visual hallucinations, post-hypnotic
		27	Positive auditory hallucinations, post-hypnotic
		28	Systemized post-hypnotic amnesias
		29	Negative auditory hallucinations
		30	Negative visual hallucinations, hyperesthesias

Because of possible danger to patients who were already psychotic, no attempt was made to induce delusional or bizarre material as Davis did with more normal patients. It does not appear a valid criterion of depth of hypnosis to induce delusions in a patient who is already delusional. In the body of this paper, when a hypnotized state is mentioned, stages 2, 3, or 4 are implied. In a few cases it was extremely difficult to differentiate between stages 1 and 2. These patients were put into group 1, the suggestible but not hypnotized group.

The results are summarized in the appended figures (Tables 1, 2 and 3). All 50 patients were committed to the state institution as psychotics. Of the 32 in the organic group, 18 were hypnotized, 14 were not hypnotized; of the 18 functional cases, 12 were hypnotized.

Results

Organic patients with arteriosclerosis, senile deterioration, alcoholic psychosis and central nervous system lues were hypnotizable. Of particular note was the successful induction of hypnosis in five of six alcoholic psychotics, and five of the central nervous system luetics. Four of eight arteriosclerotics and three of nine senile

Table 1

	Diagnosis	Age	Sex	Co-operation[1]	Contact with reality[2]	Psychomotor activity[3]	Number of attempts	Stage of hypnosis	Time necessary for induction
1.	Schiz.—simple	30	M	+	2	0	2	3	3
2.	Organic—senile	76	M	+	1	0	2	1	
3.	Schiz.—paranoid	21	M	+	2	0	1	2	3
4.	Organic—alcoholic	34	M	+	2	0	1	3	2
5.	Organic—senile	68	M	+	1	+	2	3	4
6.	Organic—psy. epilepsy	40	M	+	2	0	2	2	2
7.	Organic—CNS lues	67	M	+	2	0	1	2	4
8.	Involl. psychosis	53	M	+	2	0	2	2	6
9.	Organic—senile	70	M	+	1	0	2	2	5
10.	Organic—senile	70+?	M	0	0	+	2	1	
11.	Organic—alcoholic	50	M	+	2	0	1	3	3
12.	Organic—alcoholic	48	M	+	1	0	1	3	5
13.	Schiz.—paranoid	29	M	0	0	+	2	1	
14.	Organic—arteriosclerosis	60	M	+	1	0	2	1	
15.	Organic—arteriosclerosis	67	M	+	1	0	2	2	2
16.	Organic—arteriosclerosis	84	M	+	1	0	1	3	3
17.	Schiz.—paranoid	42	M	+	1	+	1	2	4

Table 1—(Concluded)

	Diagnosis	Age	Sex	Co-operation[1]	Contact with reality[2]	Psychomotor activity[3]	Number of attempts	Stage of hypnosis	Time necessary for induction
18.	Organic—senile	73	M	+	0	0	2	1	
19.	Organic—alcoholic	61	M	+	2	0	2	2	2
20.	Organic—arteriosclerosis	86	M	+	1	0	2	3	3
21.	Organic—CNS lues	39	M	+	1	0	2	2	3
22.	Schiz.—catatonic	74	F	0	0	—	2	2	4
23.	Schiz.—catatonic	24	M	0	0	—	2	3	4
24.	Organic—alcohol	59	M	0	1	+		3	3
25.	Organic—arteriosclerosis	77	M	0	1	+	2	0	
26.	Organic—senile	70+?	M	+	1	0	1	2	3
27.	Organic—arterio. (hemipleg.)	53	M	+	1	0	2	1	
28.	Organic—senile	84	M	+	1	0	2	1	
29.	Organic—arteriosclerosis	95	M	0	0	0	0	0	
30.	Organic—CNS lues	46	M	0	1	0	1	0	
31.	Schiz.—unclassified	22	M	+	2	0	1	1	
32.	Schiz.—unclassified	20	M	+	1	0	1	3	2
33.	Organic—alcoholic	58	M	0	2	0		0	
34.	Schiz.—unclassified	25	M	+	1	0	1	4	4
35.	Schiz.—hebephrenic	26	F	0	0	+	1	1	
36.	Organic—CNS lues	42	F	+	2	0	1	2	3
37.	Organic—post-men.-enceph.	44	F	+	2	0	2	1	
38.	Organic—senile	81	F	+	1	0	2	1	
39.	Organic—senile	82	F	+	1	0	2	1	
40.	Schiz.—paranoid	39	F	+	1	0	2	1	
41.	Organic—arteriosclerosis	72	F	+	1	0	2	2	3
42.	Organic—brain tumor	56	F	+	1	0	2	1	
43.	Schiz.—paranoid	28	F	0	0	+		0	
44.	Schiz.—unclassified	29	F	+	0	0	1	2	3
45.	Schiz.—catatonic	26	M	+	1	0	1	1	
46.	Organic—CNS lues	54	M	0	0	+	2	2	3
47.	Schiz.—catatonic	36	F	+	0	—	2	2	3
48.	Organic—CNS lues	42	M	+	1	0	2	2	3
49.	Psychosis with psycho. pers.	26	M	+	2	0	1	2	4
50.	Schiz.—paranoid	27	F	+	1	0	2	2	4

1—Co-operation { 0 = unco-operative; + = co-operative

2—Contact with reality { 0 = out of contact; 1 = partial contact; clouded sensorium; 2 = good contact

3—Psychomotor activity { 0 = normal; + = increased; — = decreased

Table 2

Diagnostic classification	Number	Hypnotized	Not hypnotized
Males 37			
Females 13			
Organic psychosis	32	18	14
Functional psychosis	18	12	6
Organic:			
Alcoholic	6	5	1
Organic arteriosclerotic	8	4	4
Organic—senile	9	3	6
CNS lues	6	5	1
Brain tumor (post-op.)	1		
Post-meningitic	1		
Psychosis and epilepsy	1	1	
Functional:			
Schizophrenia	16		
Paranoid	6	3	3
Hebephrenic	1		1
Simple	1	1	
Catatonic	4	3	1
Unclassified	4	3	1
With psychopathic personality	1	1	
Involutional melancholia	1	1	

Table 3

Diagnostic classification	Stages of hypnosis 0	1	2	3	4
Organic psychosis:					
Alcoholic	1		1	4	
Organic arteriosclerosis	2	2	2	2	
Organic senile		6	2	1	
CNS lues	1		5		
Brain tumor		1			
Post-meningitic		1			
Psychosis and epilepsy			1		
Functional psychosis:					
Schizophrenia:					
Paranoid	1	2	3		
Hebephrenic		1			
Simple			1		
Catatonic		1	2	1	
Unclassified		1	1	1	1
With psychopathic personality			1		
Involutional melancholia			1		

psychotics were hypnotizable. An attempt was made with an admittedly crude scale to describe the co-operation, the contact with reality, and the psychomotor activity relative to hypnotizability. In this regard, note (Table 1) that, of the 18 hypnotized, seven were inducted to stage three, 11 to stage two. Of the organic hypnotizable group, 10 were in the age range of 59 to 86; the majority of these patients were severely deteriorated. Note, however, that six of nine senile patients, and four of eight arteriosclerotics were not successfully hypnotized. All six senile patients, with whom the attempt failed, were in poor contact.

Of the group of 18 functional psychotics, 16 were schizophrenics, one was diagnosed psychopathic personality with psychosis, one an involutional melancholiac. Twelve were hypnotized, 10 of these were schizophrenics. There were four catatonic schizophrenics completely out of contact; three of these were hypnotized. Two of these three, moreover, were resistant and unco-operative. A number of the schizophrenics successfully hypnotized were actively hallucinating and producing delusional material; the one patient inducted to stage 4 (deep trance) was in this group. Three of six paranoid patients and three of four unclassified schizophrenics who presented paranoid trends were hypnotized. Of the 10 schizophrenics hypnotized, seven reached stage 2, two stage 3, one stage 4.

Discussion

In the early literature on hypnosis it was recognized by some workers that psychotics could be hypnotized. Moll (Moll 1890), in his classic text on hypnotism, states that it is much more difficult to hypnotize psychotic persons than normals. Moll's book refers to some early work in which, with persistence, it was possible to hypnotize 10 per cent of the psychotic patients with which hypnosis was attempted. Many writers had expressed the opinion that hypnosis of psychotics was impossible. There are a number of reports in the German literature of successful hypnosis of schizophrenics. More recently there have been reports of the successful hypnosis of schizophrenics in this country. One of the authors of this paper, for example, was successful with six selected catatonic schizophrenics.

A brief survey of the literature reveals, however, that no workers have attempted any systematic investigation of the hypnotiz-

ability of psychotics. In particular no one has reported upon the results of hypnosis with organic psychotics. There is one paper from an English mental hospital reporting on 20 cases, with such complete failure in the psychotic group that it was concluded that hypnosis was a diagnostic weapon of importance in differentiating psychoneurotics from the psychotics. None of these patients fell into the organic psychotic group. This preliminary study is the first research which includes the problem of hypnotizability of organic psychotic patients.

Among the 18 organic patients in whom hypnotic states were induced, many presented evidence of severe sensorial defects, including intellectual deterioration, gross memory impairment, lack of spontaneity, and poor contact. With a number of these patients it was possible to induce hypnosis, obtain automatic verbal and motor responses and successfully demonstrate post-hypnotic suggestions.

Some of the unco-operative, irritable, and irascible patients became co-operative as the induction progressed. Particularly with deteriorated, unco-operative, organic cases, it became necessary to change the technique, in order to make contact with the patient. One case deserves attention in this respect. A patient with central nervous system lues was actively hallucinating, completely out of contact, hyperactive to a degree requiring camisole restraint. The standard technique having failed, an authoritarian procedure was utilized with consequent induction of stage 2.

Many of these organic patients interpreted verbal commands in a literal and concrete sense—in contrast to the functional patients. For example when asked to "smooth out the wrinkles of the forehead," they used their hands to carry out the command literally. When told to raise the arm above the head, they placed the hand on the vertex of the skull. On the other hand, in patients with gross sensorial defects, evasiveness, and defects in concentration and attention, it was possible under hypnosis to conduct much more coherent interviews than in the pre-hypnotic state and, moreover, to produce the carrying out of post-hypnotic suggestions. In view of the severe attention disturbance, this latter observation warrants further investigation.

It appears from these results that complete cortical function is not necessary for the induction of hypnosis. Although it is not possible at present to evaluate the qualitative and quantitative fac-

tors of cortical activity involved, one can only make the speculation that hypnosis may be referable to a short circuiting or bypassing of some cortical processes.

Of the functional group, no untoward sequelae were noted or reported in the 10 hypnotized schizophrenics. There was one paranoid patient who acted out a homosexual fantasy attempting to seduce the examiner during the procedure. His clinical condition was not altered, however, by the procedure. With the unresponsive mute and negativistic catatonics it was possible to replace the morbid stupor with a "trance state" in which they were responsive in speech and in motor activity. Two of the patients remained responsive for a short period following the termination of hypnosis. There would seem to be important theoretical, diagnostic, and therapeutic implications inherent in hypnosis of the catatonic group which are beyond the scope of this paper.

One of the major weak points of all work in hypnosis concerns the technique of induction and the evaluation of the stages. In the first weeks of work it was considered adequate to trust the observations of a single physician. It was soon found, however, that many debatable questions arose, and it was decided that at least two physicians should be present at each test. The evaluation of what are essentially subjective phenomena improved greatly by adopting this procedure.

This consideration leads to some conclusions concerning the Davis hypnotic criteria which are derived primarily from work with non-psychotic persons. Fluttering of the lids and other eye signs were hard to evaluate in the older organic patients who suffered from permanent impairment of the extra-ocular apparatus. These are criteria for the suggestible state, however, and the main problems of evaluation did not arise here. When it came to making a positive decision that such and such a response indicated light trance or medium trance, real difficulties arose. Anesthesias are difficult to judge in aged arteriosclerotic and senile patients, and in general no attempt was made to induce them. With patients who were already psychotic no attempt was made to induce personality changes, complete amnesias, delusions, or hallucinations. Thus many of the classical criteria should be modified for work with psychotics.

In the experiment reported here, only two attempts were made with each patient. Our reports on hypnotizability are based on

these attempts. There is no reason why more extensive work with individual patients might not yield success. A large number of the senile and arteriosclerotic patients were suggestible, and further attempts at hypnosis might yield successful results in these patients.

Contrary to general theory, no direct correlation was discovered between contact with reality and hypnotizability. The psychomotor activity of successfully-hypnotized patients varied greatly; and it was possible to hypnotize negativistic catatonics, and agitated organic psychotics.

Today sodium amytal interviews are routine procedures in many mental hospitals. Each involves expense, sterile equipment, a nurse, and considerable time. Moreover the test is contraindicated in many cases. Hypnosis takes little time and no special equipment; and privacy is not an absolute necessity. In general it does not require an authoritarian manner. The range of possible subjects appears wide.

The present series of cases will be supplemented by an additional group so that a sample of some size can be obtained. Attempts will be made to test the hypnotizability of patients before and after lobotomy and before and after shock therapies. The organic psychotics are to be investigated further in regard to hypnotizability and sensorial and communicative defects.

Conclusions

1. Hypnosis is a simple, safe technique involving no special equipment.

2. Hypnotic states can be induced in a significant number of organic psychotic patients.

3. Hypnotic states can be induced in a significant number of schizophrenic patients.

4. Hypnosis can be used to obtain contact with some unresponsive catatonic patients.

5. Contact with environment, psychomotor activity, and cooperativeness bear no direct correlation to hypnotizability.

6. Complete cortical function is not a necessary requirement for the induction of hypnosis.

7. The technique used must be altered to fit the individual case.

8. Criteria for stages of hypnosis will have to be re-evaluated in reference to psychotics.

9. This is a preliminary investigation and further investigations will be carried out.

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A PRELIMINARY REPORT ON THE OCULAR FINDINGS IN 323 SCHIZOPHRENIC PATIENTS*

BY MARTIN COHEN, M. D.

Three facts in connection with schizophrenia prompted this study: the prevalence and gravity of this mental ailment, the absence of recent ophthalmoscopic reports, and the lack of micropathological descriptions of the optic disc in cases of schizophrenia. New York State has 20 state hospitals for the mentally ill with an average total population of 85,000 patients, of whom approximately 25 per cent are schizophrenics. Their treatment and care constitute an important medical, social, and economic problem.

Although, in the past, there has been important research to determine the possible existence of pathological changes in the nervous system and other organs in schizophrenia, very little has been reported concerning ophthalmological findings. In general, fundus studies have not been considered in mental disorders. Modern textbooks and other medical literature on psychiatry do not mention ophthalmoscopic findings in schizophrenics.

In 1912, Tyson and Clark** included fundus examinations in their study of 115 cases of dementia præcox at Manhattan State Hospital and found pallor of the optic disc in many of the patients. Since then, there have been no organized studies along these lines.

The present group of 323 patients consisted of 243 men and 80 women. Their ages ranged from 18 to 77 years, most of them being in the younger and middle-aged groups. The difference in the ocular condition of the age groups will be discussed later. These were ambulatory, well-nourished patients and presented the clinical manifestations of schizophrenia. The group included the four types of the disorder: 18 cases of catatonic, 249 of paranoid, 48 of hebephrenic, and 10 of simple schizophrenia. The ocular findings did not differentiate one type from another. The patients were all free from systemic or infectious diseases and none used alcohol or drugs to excess. Those with any local eye disease of primary or secondary origin or with myopia causing pallor of the disc were excluded.

*Co-publication by arrangement with the *Archives of Ophthalmology*.

**Tyson, H. H., and Clark, L. P.: The eye syndrome of dementia præcox. Arch. Ophth., 41:223-234, 1912.

A neuro-ophthalmological examination was conducted on all patients with respect to ocular muscles, pupillary light reaction, gross visual fields when possible, tension, exophthalmos, nystagmus, and ptosis. These tests were of negative value as the findings and reactions were normal, particularly the pupillary responses. For the sake of continuity, the writer will review the pertinent anatomical facts.

Fundus examinations reveal the outgrowth of the brain tissue, namely the optic nerve head and the retina with its blood supply. The central retinal blood vessels and the capillary network on the surface of the optic nerve head or optic disc are in close anatomical connection with the cerebral and general circulation. The optic disc consists of non-medullated nerve fibers originating in the retinal ganglion cells. These retinal nerve fibers continue their course through the visual pathway—that is, the optic disc, optic nerve, chiasm and optic tract, and terminate mainly in the external geniculate body located in the midbrain. From this junction, fresh nerve fibers, known as optic radiations, transmit the visual impulses to the ganglion cells in the cortex of the occipital lobe. Located in the center of the normal disc is the physiological cup, consisting of perforations in the connective tissue membrane, the lamina cribrosa. The cup is brilliant white and, at times, is enlarged, so that the reflection from it may interfere with recognition of the normal disc color. On its inner side can be seen the nasal portion of the disc; on its outer side the temporal portion. The border of the disc is sharply outlined. The normal color of the disc, as is well recognized, is pinkish on its nasal portion, shading to a lighter pink on the temporal portion. This color varies with several factors, chiefly with the intensity of the ophthalmoscope's luminosity and the nature of the structure and vascularity of the disc. Variations in the normal color are well known and exist within physiological limits. To judge whether variations are normal or abnormal requires considerable experience and training in recognizing the disc color variations in normal fundi. If the color variation is normal, then the results of the visual acuity and visual field tests will be normal. However, these tests are not applicable in schizophrenics as their answers are generally unreliable, and the results of these tests, if normal, would not explain disc discoloration.

If a degenerative or inflammatory condition is present in the optic disc, this lesion, as seen with the ophthalmoscope, serves as a visible guide to diseases of the central nervous system, such as tabes, multiple sclerosis, alcohol poisoning, brain tumor, etc.

While engaged in this study of eyegrounds in schizophrenia, the writer noted especially a brown-gray color of the optic disc. Otherwise the fundus was normal. This color differed from the normal, as well as from the distinct gray or white of partial or complete optic atrophy as seen in tabes or multiple sclerosis. This brown-gray color was, as a rule, present in both eyes, although in a few cases the right was more involved than the left. The reason for the latter condition could not be ascertained.

The cause of this particular discoloration could not be determined as no neuropathological examinations were available and no mention was found in the literature of any neuropathological studies of the disc or retina in schizophrenia. It cannot be stated, at present, whether this color progresses, regresses or remains stationary; it will be necessary to await the results of future investigations. Thirty-four of the patients originally examined were, over a period of six months, intermittently re-examined; and in 25 of these, the condition of the discs seemed to have remained stationary while in nine discoloration had become more pronounced. All the patients re-examined were under 40 years of age and they were chosen for re-examination because all of them had shown either a temporal or diffuse brown-gray discoloration of the disc.

The difficult task of selecting these 323 schizophrenics from the hospital wards was undertaken by Dr. Nobe E. Stein. Preparation for the examination consisted of instilling, on the conjunctiva, two drops of a 2 per cent homatropine solution to facilitate observation of the fundus. Prior to examination of each group, the writer observed the fundi of several nurses with normal eyegrounds for the purpose of control and of testing the hand ophthalmoscope's luminosity.

Patients were directed to look straight forward while the light from the ophthalmoscope was directed toward the optic disc in order to avoid any difference in light or color reflections. The light from the ophthalmoscope was of moderate intensity. (A "Giantscope" conducted on house current controlled by rheostat gives a more constant and more easily regulated illumination than

does the generally used hand ophthalmoscope. Unfortunately, the instrument was not available for this study.)

Approximately 15 schizophrenics were examined each week over a period of several months. The results of the examination were dictated for the records. Through the courtesy of Dr. John H. Travis, director, the writer was privileged to conduct this study at Manhattan State Hospital, beginning in May 1947. The results of the investigation are as follows: In 100 patients (31 per cent of those examined), the color of the discs was normal; 84 (26 per cent) showed a marked temporal brown-gray discoloration (Figure 1); while 139 (43 per cent) showed a diffuse or complete brown-gray discoloration of the discs (Figure 2). These findings indicate either a marked temporal or diffuse discoloration in 223 patients (69 per cent). This is an unusually high percentage of abnormal color. As regards the older patients, the brown-gray color might be attributed to vascular changes due to arteriosclerosis, but the retinal vasculature in these patients was normal. The percentage of young and middle-aged patients with discoloration of the discs must be considered excessive, since 102 out of 171 patients, under 50 years of age (60 per cent of them), showed this brown-gray color. The relation of age group and disc color is shown in the accompanying table.

Appearance of optic discs	Under 30 years	30-39 years	40-49 years	50-59 years	Over 60 years
Total number of patients....	37	48	86	89	63
Normal color	14	19	36	17	14
Marked temporal discoloration	16	12	21	24	11
Diffuse discoloration	7	17	29	48	38
Percentage of patients showing discoloration	62	60	58	81	78

Inasmuch as these fundus findings record the writer's personal observation, several ophthalmologists were requested to express their opinions regarding the optic disc changes. The majority of them confirmed the correctness of the findings.

Since this study was concerned solely with schizophrenia, it is difficult to state whether optic disc changes are present in other psychotic affections. This matter will be reported in a subsequent paper. The discoloration of the disc is possibly due to a degenerative, inflammatory, vascular, metabolic or toxic process affecting

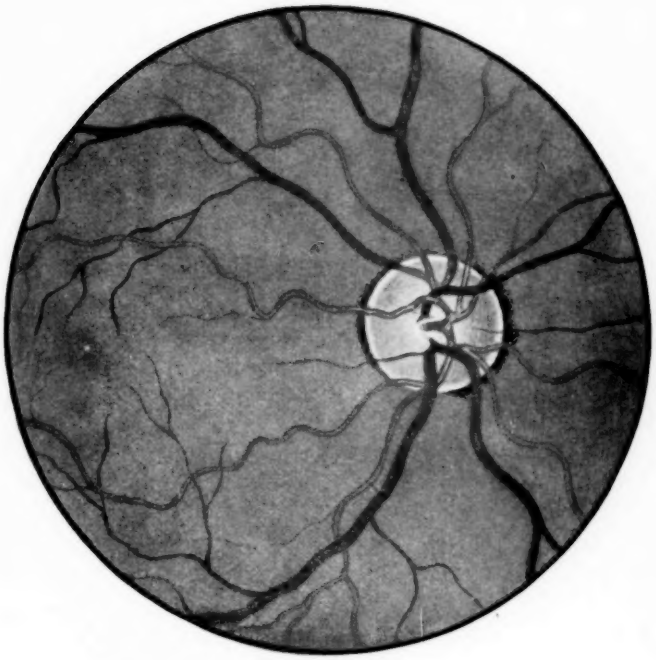

Fig. 1

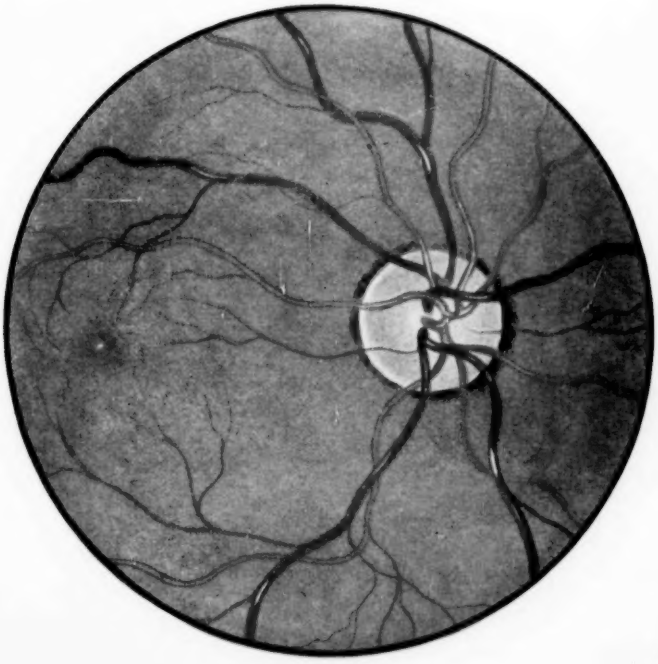

Fig. 2

Fig. 1. Marked Temporal Disc Discoloration.
Fig. 2. Diffuse Disc Discoloration.

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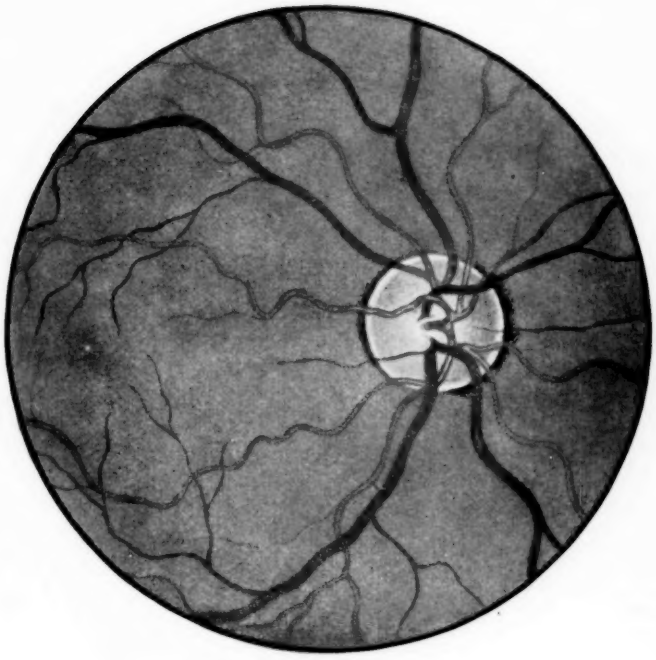

Fig. 1

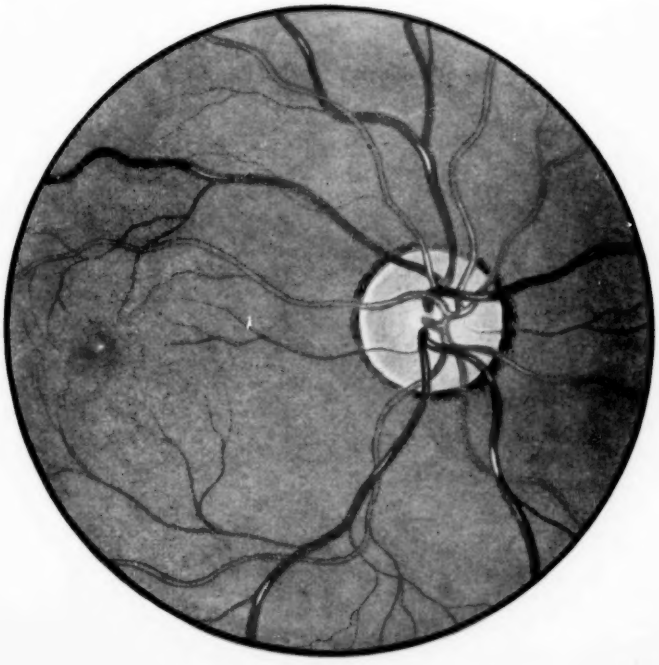

Fig. 2

Fig. 1. Marked Temporal Disc Discoloration.
Fig. 2. Diffuse Disc Discoloration.

the optic nerve head. As previously stated, a neuropathological examination of the disc, in such a group of patients might serve to clarify the underlying cause of the discoloration.

In conclusion, the ophthalmological manifestations and clinical findings suggest the probable existence of some pathological process affecting the visual pathway in the brains of schizophrenic patients.

The writer wishes to express his thanks to Dr. Nobe E. Stein for his able and patient co-operation in this investigation, particularly for selecting the schizophrenic patients seen and preparing them for the examination.

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GENERAL SURVEY OF INSULIN-TREATED PATIENTS AFTER FIVE YEARS*

BY SIMON KWALWASSER, M. D., AND LAWRENCE C. ROBINSON

Introduction

The amount of literature on the various shock treatments published during the past 10 years has been prodigious. Although all of these publications have added to the general knowledge, many were of limited value because of the small number of cases reported, the grouping together of acute and chronic cases, and probably, most important as a single factor, the proximity of the report to the date of termination of the treatment. Insulin has been used as a treatment for schizophrenia in this country for the past 11 years, and there has, therefore, been little opportunity for long-range follow-ups. Only by the examination of long-range studies can the ultimate usefulness of any treatment method be properly evaluated. This is especially true in an illness such as schizophrenia, where remissions and relapses are common.

The ultimate goal of treatment is the patient's return to the community. All resources must be used in the process of rehabilitation, so that the patient may enjoy an optimum of activity as a productive and healthy member of society. The treatment plan, to be complete, must include services which will reduce the duration of the psychotic episode, and must be followed by medical, vocational, personal, and social services during and after hospitalization.

The authors believe that a thorough survey of patients who completed treatment five to 11 years ago might reveal certain significant factors that otherwise might be overlooked in a study done soon after the completion of shock treatment. With this general purpose in mind the following questions were formulated: (1) Is there any difference in the condition at the end of treatment between the cases considered acute and those considered chronic? (2) Is there any difference in the condition five or more years after treatment between the cases considered acute and those considered chronic? (3) Does the method of administering treatment

*Read at the interhospital conferences at the New York State Psychiatric Institute, April 20, 1948 and at Syracuse Psychopathic Hospital, May 4, 1948.

affect either the immediate or the long-range results? (4) What is the actual condition of patients now, five to 11 years after treatment?

Technique

This survey includes all dementia præcox patients who started insulin coma therapy at Rockland State Hospital, Orangeburg, N. Y., between March 18, 1937 and June 30, 1943. Insulin coma therapy was first instituted as a treatment for schizophrenia at Rockland on the earlier of these dates. It was discontinued from early 1938 to early 1940, a period when metrazol shock therapy replaced it. Dr. Charles Merton Holmes, who had attended Dr. Sakel's course at the Harlem Valley State Hospital, Wingdale, N. Y., early in 1937, administered the insulin therapy when it was first used at Rockland State Hospital. He treated 54 cases. On January 18, 1940, insulin was reinstituted as a method of treatment and has been used continuously since that time. When insulin was again utilized, the senior author of this paper administered the treatment. From January 18, 1940 to June 30, 1943, 168 schizophrenic patients were treated.

It is of significance to note the differences in conditions which prevailed in the treatment during the two periods described here. Insulin was regarded as an unknown, untried and dangerous treatment when the unit was first opened. There was a definite reluctance on the part of relatives to sign permits for it; and, consequently, many of the patients in the earlier group were chronic cases. Often, the patient was regarded as a "hopeless" case, and many relatives thought there was little to lose. Later, however, when techniques of administration had become more standardized and immediate results were more encouraging, relatives began to clamor for the treatment.

In 1937 when treatments were started, there were facilities for only six patients. Never was more adequate physical care provided for patients in a state mental hospital than in the instance of these first insulin-treated patients. Each had a private room, and each room was equipped with an emergency tray containing stimulants, glucose, gags and all other items which might be necessary for the care of the individual patient. Two nurses, a graduate and a student, were assigned to each room. A charge nurse and two physicians were in constant attendance during the treat-

ment period. Insulin injections were administered at 7 a. m., rooms were darkened, and quiet was maintained on the ward throughout the morning. When the patients awoke, they were fed. In the afternoons, they were taken for walks, picnics, games, movies or occupational therapy. An occupational therapy unit was placed on the ward and therapists' notes in individual records were made very detailed. If special care was to be of significance in the eventual recovery of schizophrenics, this early group of patients should have had excellent prognoses because they had as much personal care and attention as could be possible under ideal conditions.

Later, Dr. Holmes' unit was enlarged to 20 beds and although the employee-patient ratio was less than previously, it was still considerably more than is ordinarily found today. After the increase in the number of patients receiving treatment, the therapy was administered in a common dayroom. The afternoon activities were still maintained.

A further significant difference between the cases treated in the early group and those treated in the second group was the total number of treatments administered. Many patients in the first group received few treatments and had very few comas. Often treatments were terminated before patients had received 25 injections of insulin.

The differences which prevailed during the separate periods when the two groups of patients were treated are summarized: (1) Group I, or the early group, was composed largely of chronic cases; Group II, or the later group, was composed largely of acute cases; (2) Group I received a very adequate amount of personal and nursing care, Group II received a minimal amount; and (3) Group I had a smaller number of treatments with fewer and lighter comas; Group II, except in a few cases, had full courses of treatment, resulting in 50 comas. Findings concerning the entire number of patients will be included in this paper; however, Groups I and II will be separated because of the differences noted.

The data for this study were obtained from the records of Rockland State Hospital, interviews with hospitalized and discharged patients and their families, and correspondence with hospitals and relatives, particularly when certain patients were located at a distance too great to make practical a personal visit.

Observations

Table 1 shows the number of cases that were treated by Drs. Holmes and Kwalwasser, according to diagnosis and sex. In the diagnoses of the two groups, there seems to be a difference in the percentages of the various subgroupings of schizophrenia. Sakel's original findings indicated that catatonic patients responded more favorably to the treatment than those with other types of schizophrenia. This may have influenced the selection of the cases, which comprised Group I. In addition, clinical directors sometimes differ in their diagnostic opinions, due chiefly to a degree of

Table 1. Number of Cases Treated, by Diagnosis, Sex, and Physician

Diagnosis—Sex	Holmes—Group I	Kwalwasser—Group II	Total
Dementia præcox, catatonic			
Male	13	24	37
Female	14	21	35
Total	27(50.0%)	45(26.8%)	72(32.4%)
Dementia præcox, paranoid			
Male	14	40	54
Female	4	20	24
Total	18(33.3%)	60(35.7%)	78(35.1%)
Dementia præcox, hebephrenic			
Male	5	19	24
Female	2	18	20
Total	7(13.0%)	37(22.0%)	44(19.8%)
Dementia præcox, mixed			
Male	1	18	19
Female	1	8	9
Total	2(3.7%)	26(15.5%)	28(12.6%)
Total			
Male	33	101	134
Female	21	67	88
Total	54(100.0%)	168(100.0%)	222(100.0%)

subjectivity which enters into each decision. The authors have not changed diagnoses, and the findings herein are what the patients were originally diagnosed five to 10 years ago.

Both groups had more males than females. There was no apparent difference between the male and female patients with regard to (1) diagnosis, (2) duration of illness prior to treatment,

(3) condition after treatment, (4) the length of time and adjustment outside the hospital after release, and (5) present condition.

Table 2 shows the condition at the end of treatment by group and by duration of illness prior to treatment. Certain figures are particularly revealing.

The percentage of chronic cases in Group I is approximately the same as the percentage of acute cases in Group II. The percentage of cases ill less than 12 months in Group I is almost the same as the percentage of cases ill over 36 months in Group II. This is an almost perfect reversal; this illustrates one of the prime differences in the two groups, and thus demonstrates in part why two such dissimilar groups could not be considered as one group in a survey. A second fact illustrated by Table 2 is the immediate difference in results at the completion of treatment. Of the patients in Group I, 51.9 per cent were improved to a greater or lesser degree, and 48.1 per cent were unimproved. Patients of Group II who were improved after treatment amounted to 81.6 per cent of the total treated; 17.2 per cent were unimproved, and 1.2 per cent died during treatment.

Twenty-two patients of each group had been ill 36 months or longer prior to treatment. Of these, seven of Group II and two of Group I were much improved, 11 of Group II and seven of Group I were improved, or 18 of Group II and nine of Group I showed improvement, and four of Group II and 13 of Group I were unimproved. As to the point of benefits of more intensive treatment vs. personal care, this would seem to indicate the greater value of the former.

There seem to be no universally accepted criteria on which to base medical condition at the completion of treatment. The attempt to judge results by the degree of improvement is rather unsatisfactory for three reasons: (1) because of the large subjective factor which varies with each psychiatrist; (2) because the condition of schizophrenia varies widely without shock treatment; and (3) because the numerous categories of remission tend to be confusing. If the psychiatrist who decides the degree of improvement at the completion of treatment is the same psychiatrist who makes the decision on the same patient several years later, the subjectivity involved in each decision should be uniform. Fortunately, the senior author judged the degrees of improvement of

Table 2. Condition at Completion of Treatment, by Duration of Illness and Group

Condition, duration and group	0-6 mos.		6-12 mos.		12-24 mos.		24-36 mos.		Over 36 mos.		Total Number	Total Per cent	Total Number	Total Per cent
	I	II	I	II	I	II	I	II	I	II	I		II	
Much improved														
DPC	1	12	1	2	2	1	1	0	1	3	6		18	
DPP	1	8	0	4	3	1	1	1	1	4	6		18	
DPH	0	3	0	2	0	1	0	0	0	0	0		6	
DPM	0	6	1	1	0	0	0	1	0	0	1		8	
Total	2	29	2	9	5	3	2	2	2	7	13	24.1	50	29.8
Improved														
DPC	2	12	0	5	4	6	0	0	3	0	9		23	
DPP	0	9	1	9	1	9	0	1	3	5	5		33	
DPH	0	5	0	6	0	1	0	2	1	2	1		16	
DPM	0	6	0	3	0	1	0	1	0	4	0		15	
Total	2	32	1	23	5	17	0	4	7	11	15	27.8	87	51.8
Unimproved														
DPC	0	2	0	1	4	1	4	0	4	0	12		4	
DPP	0	2	0	4	2	1	1	1	4	0	7		8	
DPH	0	1	0	2	0	5	1	3	5	4	6		15	
DPM	0	0	0	0	0	1	1	1	0	0	1		2	
Total	0	5	0	7	6	8	7	5	13	4	26	48.1	24	17.2
Total														
DPC	3	26	1	8	10	8	5	0	8	3	27		45	
DPP	1	19	1	17	6	11	2	3	8	9	18		59	
DPH	0	9	0	10	0	7	1	5	6	6	7		37	
DPM	0	12	1	4	0	2	1	3	0	4	2		25	
Total	4	66	3	39	16	28	9	11	22	22	54	100.0	166	98.8
Per cent ..	7.4	39.9	5.6	23.8	29.6	16.7	16.7	6.5	40.7	13.8	Deceased		2	1.2
													168	100.0

all patients of Group II at the completion of treatment, and has also made the decision as to the conditions of all patients at the date of this writing.

Table 3 shows the condition of patients at the completion of treatment according to the length of time in the community without readmission to the hospital. The principle findings illustrated by this table are that those who showed the most improvement at the completion of treatment have also showed the greater ability to remain in the community. Of Group I, 38.9 per cent did not leave the hospital and another 20.3 per cent were returned within one year of release. Hence, 59.2 per cent either never left the hospital or were rehospitalized within one year. Of Group II, 13.1 per cent never left the hospital, and 26.2 per cent were returned within one year. Hence, 39.3 per cent of Group II either never left the hospital or were rehospitalized within one year. This shows that Group II had nearly 20 per cent more favorable a record from the short-term point of view than Group I. At the end of four years 24.1 per cent of Group I still remained in the community without a return or readmission, and 38.7 per cent of the patients of Group II could boast the same record.

The proportion of patients termed "unimproved" at the completion of treatment who have now adjusted satisfactorily in the community for four years or more (16 per cent of the "unimproved" total) is great enough to question why some of these patients have responded favorably when every indication would lead one to expect only many years of continued hospitalization. These cases that have made a surprisingly adequate adjustment, based on the number of years out of any mental hospital, fall into two main classes. One group has made remarkable recoveries due either to what may be termed delayed spontaneous remissions or has received further intensive psychiatric care after leaving the hospital. The other group is ill and still "unimproved," but the relatives seem to prefer having their patients in the home and psychotic, rather than in the hospital and psychotic.

Table 3 shows the duration of time in the community without rehospitalization. Not all the patients who have been returned have remained hospitalized since. Some have been released a second time and have remained in the community; others have been rehospitalized several times but are at present in the community.

Table 3. Condition at Completion of Treatment, by Length of Time in the Community Before Return

Condition	Never out		0-6		6-12		12-24		24-36		36-48		48 plus		Total	
	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II
Much improved																
DPC	0	0	0	1	1	4	1	3	1	2	0	0	3	8	6	18
DPP	0	1	0	1	3	2	0	1	1	1	0	2	2	10	6	18
DPH	0	0	0	0	0	1	0	2	0	1	0	0	0	2	0	6
DPM	0	0	1	2	0	0	0	0	0	0	0	1	1	5	2	8
Total	0	1	1	4	4	7	1	6	2	4	0	3	6	25	14	50
Improved																
DPC	4	1	1	4	0	2	0	2	0	3	0	1	3	10	8	23
DPP	3	4	1	7	0	4	1	7	0	0	0	3	0	8	5	33
DPH	1	1	0	2	0	1	0	1	0	0	0	0	0	11	1	16
DPM	0	1	0	3	0	1	0	2	0	2	0	0	0	6	0	15
Total	8	7	2	16	0	8	1	12	0	5	0	4	3	35	14	87
Unimproved																
DPC	7	1	0	1	0	0	0	0	1	0	1	0	3	2	12*	4
DPP	5	2	1	2	1	1	0	1	0	0	0	0	0	2	7	8
DPH	1	9	0	4	2	1	1	0	0	0	1	0	1	1	6	15
DPM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	13	14	1	7	3	2	1	1	1	0	2	0	4	5	25	29
Total																
DPC	11	2	1	6	1	6	1	5	2	5	1	1	9	20	26*	45
DPP	8	7	2	10	4	7	1	9	1	1	0	5	2	20	18	59
DPH	2	10	0	6	2	3	1	3	0	1	1	0	1	14	7	37
DPM	0	3	1	5	0	1	0	2	0	2	0	1	1	11	2	25
Total	21	22	4	27	7	17	3	19	3	9	2	7	13	65	53*	166**
Per cent	38.9	13.1	7.4	16.1	12.9	10.1	5.6	11.3	5.6	5.3	3.7	4.2	24.1	38.7	98.2	98.8

*One catatonic male in community unknown time before readmission.

**Two patients deceased in treatment.

The admission during which the patient received insulin-coma therapy has been considered the first admission for purposes of this study, and the release following completion of treatment has been considered the first release. The present status of patients has been broken down into four main categories: (1) those who have not been returned or readmitted after their "first" release, (2) those who are in the community but who have been returned or readmitted following their first post-insulin release, (3) those who are at present hospitalized but who have been released one or more times following completion of treatment, and (4) those patients who have never been released subsequent to treatment. Two patients died three years after treatment; and they are placed in the classification in which they were at the time of death.

Table 4 shows the number of patients in each of the categories described, according to the duration of illness prior to insulin therapy and according to group. The percentage figures are of the types of schizophrenia, showing the percentage of each type in each of the major categories.

Because of the dissimilarity of the two groups it is difficult to draw conclusions from the comparisons in any specific category. It is possible, however, to make comparisons in the total results. One must be cautioned to bear in mind that there were more than three times as many patients in Group II as in Group I. Therefore, two or three patients of Group I who made a good or bad showing could alter the percentages rather sharply, whereas an equal number of Group II patients would have little comparable effect on the total figures.

One-third of the patients of Group I are now out of the hospital; 22 per cent have never been readmitted, and 11 per cent have been released more than once. Slightly more than one-half of Group II are out of the hospital: 35 per cent of whom have never been readmitted and 15.5 per cent of whom have been released more than once. Both groups have poor showings for patients who have been returned and subsequently released again. Of the 21 patients of Group I who were readmitted after release, only six (28.6 per cent) are out of the hospital now, and of the 85 patients of Group II who were readmitted after release only 26 (30.6 per cent) are out of the hospital now.

Contrary to what might be expected, the chronic patients of each group who improved enough to leave the hospital did almost as

Table 4. Present Status of Patients, by Duration of Illness Prior to Insulin Treatment

Present states	Time—Group 0-6 I	0-6 II	6-12 I	6-12 II	12-24 I	12-24 II	24-36 I	24-36 II	Over 36 I	Over 36 II	Total I Number	Total I Per cent	Total II number	Total II Per cent
Released, not readmitted														
DPC	1	11	0	0	2	7	3	0	2	1	8	29.6	19	42.2
DPP	0	8	0	5	2	2	0	2	1	2	3	16.7	19	31.7
DPH	0	3	0	5	0	3	0	0	1	2	1	14.3	13	35.1
DPM	0	6	0	0	0	0	0	0	0	2	0	6.0	8	30.8
Total	1	28	0	10	4	12	3	2	4	7	12	22.2	59	35.1
Released after being readmitted														
DPC	1	7	1	4	0	1	0	0	1	2	3	11.1	14	31.1
DPP	0	1	0	2	0	0	0	1	1	1	1	5.6	5	8.3
DPH	0	0	0	1	0	0	0	0	1	0	1	14.3	1	2.8
DPM	0	3	0	1	0	0	1	1	0	1	1	50.0	6	23.2
Total	1	11	1	8	0	1	1	2	3	4	6	11.1	26	15.5
Return after being released														
DPC	0	6	0	3	3	1	1	0	1	0	5	18.5	10	22.2
DPP	1	8	0	8	1	6	1	0	3	6	6	33.3	28	46.7
DPH	0	4	0	3	0	1	1	4	2	1	3	42.8	13	35.1
DPM	0	3	1	2	0	1	0	1	0	1	1	50.0	8	30.8
Total	1	21	1	16	4	9	3	5	6	8	15	27.8	59	37.7
Never released from hospital														
DPC	0	1	0	1	5	0	2	0	4	0	11	40.8	2	4.5
DPP	0	3	1	2	3	3	1	0	3	0	8	44.4	8	13.3
DPH	0	2	0	1	0	3	0	1	2	3	2	28.6	10	27.0
DPM	0	0	0	2	0	1	0	1	0	0	0	0.0	4	15.4
Total	0	6	1	6	8	7	3	2	9	3	21	38.9	24	14.3
Total														
DPC	2	25	1	8	10	9	6	0	8	3	27	100.0	45	100.0
DPP	1	20	1	17	6	11	2	3	8	9	18	100.0	60	100.0
DPH	0	9	0	10	0	7	1	5	6	6	7	100.0	37	100.0
DPM	0	12	1	5	0	2	1	3	0	4	2	100.0	26	100.0
Total	3	66	3	40	16	29	10	11	22	22	54	100.0	168	100.0

well in remaining out of the hospital as did the acute patients.

A further finding illustrated in this table, and one which normally would not be anticipated, is the favorable results with the hebephrenic cases of Group II. Note that 35.1 per cent of all hebephrenics of Group II were released and have not been returned or readmitted. Only the catatonics (42.2 per cent) have a higher ratio of being released and not returned. In considering the total number of patients in the community, a picture more within the expected limits is found. Only 37.9 per cent of the Group II hebephrenics are in the community, compared with 73.3 per cent of the catatonics and 54 per cent of the mixed cases. The paranoids show 40 per cent now in the community. Of the two main group totals, 33.3 per cent of Group I and 50.6 per cent of Group II are now in the community. This includes those patients who have been released more than once—in addition to those patients who have never returned.

One should be reminded, perhaps, that in addition to the points made previously concerning the difference in the composition and treatment of the groups, the Group I patients finished treatment from two to five years before the patients of Group II, and thus have had longer times in which to return to the hospital. This may partially explain one aspect of the less favorable findings of Group I as compared to Group II. To clarify further the relation of the time of the study to the time of the treatment a hypothetical chart has been constructed. (Figure 1.)

For purposes of illustration, it is assumed that all patients received treatment and were released at the same time. The solid line indicates the precentage of patients of Group I who were released and not readmitted; the broken line represents patients of Group II.

Group I: Had this study been made immediately after treatment, 61.1 per cent of the patients would have been out of the hospitail. From then on we see the following return rate: First six months, 7.4 per cent; next six months, 12.9 per cent; first to second year, 5.6 per cent; second to third year, 5.6 per cent; third to fourth year, 3.7 per cent; from fourth to ninth year only 1.7 per cent. At the end of nine years 22.4 per cent of the patients in Group I are still out of the hospital.

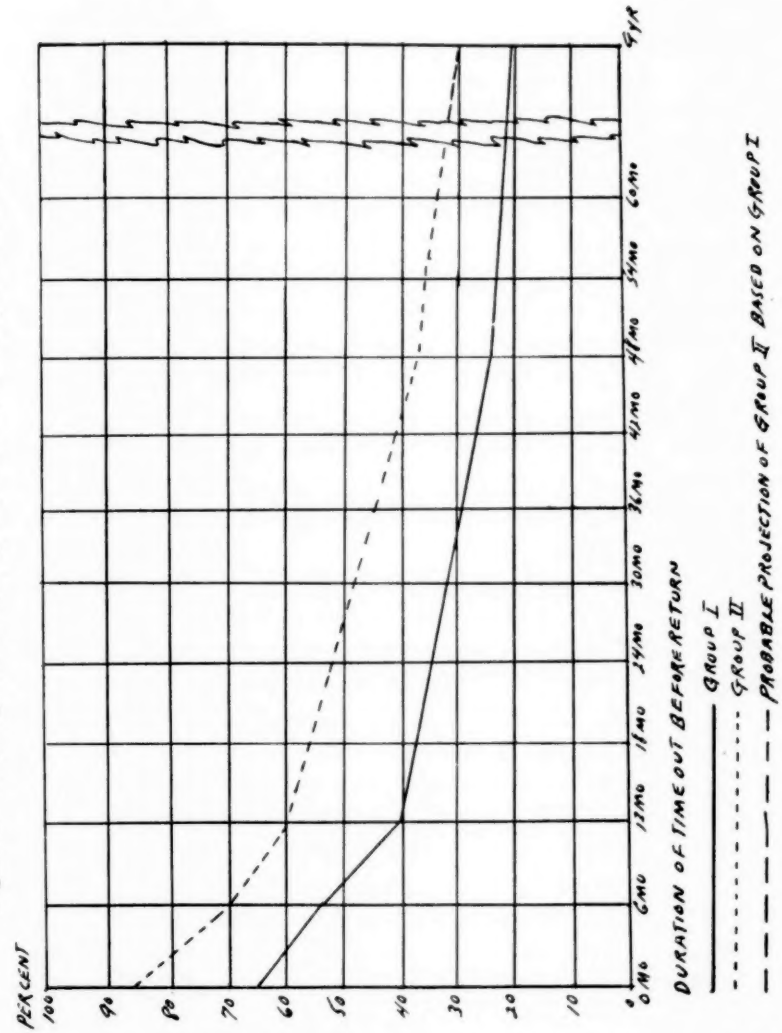

Figure 1. Percentage of Patients by Time Out of the Hospital Before Return

Group II: Immediately after the completion of treatment 86.9 per cent were released from the hospital. The return rate in this group was: First six months, 16.1 per cent, next six months, 10.1 per cent; first to second year, 11.3 per cent; third to fourth year, 4.2 per cent. The curve in Group II shows a leveling off similar to the curve in Group I. At the end of four years, 35 per cent of the Group II patients had been released and not returned to any hospital. Group II patients returned to the hospital at a slightly greater rate than those of Group I during the first two years; but

after that the rate seems to be about equal. Assuming that Group II patients will continue to return at an equal rate with Group I, at the end of nine years approximately 33 per cent of the most recently treated group will still be out of the hospital with no returns or readmissions.

Had a study been made immediately after treatment, the finding that 86.9 per cent of the patients improved sufficiently to return to the community would have been phenomenal. As is seen, however, the results after a few years are not phenomenal, but more within the limits of expectations. Perhaps in another five or 10 years a more accurate evaluation of some of the newer methods of treating schizophrenia can be made, and the present optimistic reports will have been modified somewhat by the test of time.

Figure 1 indicates that the immediate results of treatment in schizophrenia are good, but that the long-range prognosis is not nearly so favorable, regardless of the type of treatment or the condition prior to treatment.

In the first part of this paper some of the variables have been examined for short and long-range results. Table 5 is an attempt to show any relationship existing between the duration of illness and the duration of time in the community before return to the hospital. Two main factors will make an interpretation of this table somewhat hazardous: First, the difference in numbers, i. e., one group is composed of 54 patients and the other group has 168 patients; and second, the heavy weighting of chronic cases in one group as compared to the heavy weighting of acute cases in the other.

Seventy patients were treated within six months of the stated onset of their psychoses. The three acute patients in Group I all left the hospital, but two returned within one year. The remaining acute case is still making a successful adjustment in the community. Six of the 67 acute cases in Group II never left the hospital, 12 returned within one year following release, and 32 or 47 per cent have never been readmitted. Of the three Group I patients who were ill from six to 12 months prior to treatment, one never left the hospital, one remained out more than two years, and one is still in the community, never having been returned. Of the 40 cases in Group II who were ill six to 12 months before treatment, six never left the hospital, 17 were returned within one year, and 11, or 27.5 per cent, are in the community after at least four years.

Table 5. Length of Time Out of Hospital Following Release, by Duration of Illness Prior to Insulin

Length of time out	Never out*		0-6		6-12		12-24		24-36		36-48		Over 48		Total No.	%	Total No.	%
Group	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I**		II	
Duration of illness prior insulin treat.																		
0-6 mos.																		
DPC	0	1	0	3	1	1	0	4	0	4	0	1	1	12	2		26	
DPP	0	3	0	3	1	2	0	2	0	0	0	2	0	8	1		20	
DPH	0	2	0	1	0	0	0	2	0	0	0	0	0	4	0		9	
DPM	0	0	0	2	0	0	0	1	0	0	0	1	0	8	0		12	
Total	0	6	0	9	2	3	0	9	0	4	0	4	1	32	3	5.6	67	39.9
6-12 mos.																		
DPC	0	1	0	3	0	3	0	1	1	0	0	0	0	0	1		8	
DPP	1	2	0	4	0	2	0	2	0	1	0	1	0	5	1		17	
DPH	0	1	0	1	0	2	0	0	0	1	0	0	0	5	0		10	
DPM	0	2	0	1	0	1	0	0	0	0	0	0	1	1	1		5	
Total	1	6	0	9	0	8	0	3	1	2	0	1	1	11	3	5.6	40	23.8
12-24 mos.																		
DPC	5	0	1	0	0	1	1	0	0	0	0	0	2	7	9		8	
DPP	3	3	0	1	0	1	0	2	1	0	0	2	2	2	6		11	
DPH	0	3	0	0	0	1	0	0	0	0	0	0	0	3	0		7	
DPM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0		2	
Total	8	7	1	1	0	3	1	2	1	1	0	2	4	12	15	27.8	28	16.7

Table 5. Length of Time Out of Hospital Following Release, by Duration of Illness Prior to Insulin—(concluded)

24-36 mos.																			
DPC	2	0	0	0	0	0	0	0	1	0	0	0	3	0	5		0		
DPP	1	0	0	1	1	0	0	1	0	0	0	0	0	1	2		3		
DPH	0	1	0	3	0	0	1	1	0	0	0	0	0	0	1		5		
DPM	0	1	1	1	0	0	0	1	0	0	0	0	0	0	1		3		
Total	3	2	1	5	1	0	1	3	1	0	0	0	3	1	10	18.5	11	6.5	
Over 36 mos.																			
DPC	4	0	0	0	0	1	0	0	0	1	1	0	3	1	8		3		
DPP	3	0	2	1	2	2	1	2	0	0	0	0	0	4	8		9		
DPH	2	3	0	1	2	0	0	0	0	0	1	0	1	2	6		6		
DPM	0	0	0	1	0	0	0	0	0	1	0	0	0	2	0		4		
Total	9	3	2	3	4	3	1	2	0	2	2	0	4	9	22	40.8	22	13.1	
Total																			
DPC	11	2	1	6	1	6	1	5	2	5	1	1	9	20	26		45		
DPP	8	8	2	10	4	7	1	9	1	1	0	5	2	20	18		60		
DPH	2	10	0	6	2	3	1	3	0	1	1	0	1	14	7		37		
DPM	0	4	1	5	0	1	0	2	0	2	0	1	1	11	2		26		
Total	21	24	4	27	7	17	3	19	3	9	2	7	13	65	53**	98.3	168*	100	0.
Percentages	38.9	14.3	7.4	16.1	13.0	10.1	5.6	11.3	5.6	5.3	3.7	4.2	24.1	38.7	98.3		100.0		

*Two patients deceased during treatment included in "Never Out" classification.
**One catatonic male in community unknown time before readmission.

Of the 15 patients in Group I ill 12 to 24 months prior to treatment, eight never left, and only four have remained out of the hospital since release. Ill for the same duration of time before treatment were 28 patients of Group II, seven, or 25 per cent, of whom never left the hospital and 15, or 54 per cent, of whom have not been readmitted. Only three of the 11 Group I patients ill from two to three years before treatment are still in the community, and only one of the 10 Group II patients ill for the same length of time has remained in the community.

Those patients ill over three years have made almost as good an outside adjustment as have some of the patients with shorter histories of illness. Nine of the 22 chronic patients of Group I have never left the hospital, four have never returned after release. Three of the chronic cases of Group II have never left the hospital, and nine have never been readmitted subsequent to their first discharges. The long-range results, as herein shown, pose the very practical question as to how rigid one's criteria shall be in regard to the selection for treatment of chronic cases. One of the most interesting examples found in this survey was a patient who had been ill since 1930, had been hospitalized since 1933, and was treated late in 1941. Several times he had been disapproved for insulin-coma therapy because it was felt the prognosis was extremely poor. Treatment was started as a result of relatives' insistence. He received 64 treatments with 48 comas, one of which was a prolonged coma, and was released from the hospital in May 1942 in a "much improved" condition. He was discharged one year later. Soon after his hospital release, he returned to his profession of teaching. Later he married, now has children and is making an excellent adjustment. His medical condition unquestionably is "recovered."

Discussion

The figures substantiate the belief that medical condition and the ability to remain in the community are closely correlated, indicating that those who are able to adjust are also those who are mentally improved. Of the 104 patients not in any hospital, 36, or 34.6 per cent, are "recovered."

"*Recovered*" as used in this paper, means there are no psychotic symptoms and that the patients are making an adequate social and economic adjustment at least as good as pre-psychotic

levels. "*Much improved*" means there are no psychotic symptoms but that the patients are functioning at levels lower than those of pre-psychotic attainment. "*Improved*" means the showing of some psychotic symptoms but ability to work and adjust in the community. "*Unimproved,*" as used in this paper, means the showing of psychotic symptoms and inability to adjust to such extent that relatives and/or community facilities are assuming responsibility for care and maintenance. Since patients who are hospitalized are not working or adjusting in the community all are classified here as "unimproved."

Of the 104 patients not in any hospital, 28, or 26.9 per cent, are considered "improved"; 6, or 5.8 per cent, are "unimproved," and one discharged patient is deceased. About 66 per cent of all patients out of a hospital are showing no psychotic symptoms, and 27 per cent are showing some symptoms but are producing and maintaining themselves in a competitive society. It is therefore statistically sound to consider all references in this paper to patients who are out of the hospital as patients who are exhibiting some degree of improved behavior.

Except for the few cases who received treatment 10 or more years ago, employment for the patients included in this survey was easy to acquire, due mainly to the war. It is quite possible that some might have returned to the hospital or made poorer outside adjustments, had employment been more difficult to obtain. Most of the patients, however, would not have fared differently than in their present situations. One male patient obtained employment in a shipyard and his wages were steadily increased until the end of the war. When the shipyard ceased production he was without employment. Within one week he obtained another job. Although his new job paid less at first than his war job did, his salary and his relegated areas of responsibility have steadily increased so that at this time his wages and his position are in excess of the best he accomplished in the shipyard.

Another former patient made $60 a week during the war. When she was dismissed at the war's end she married and had a child.

The husband of another patient deserted her within a few months after her hospital release. He took what limited funds the couple had and one of their two children. The patient since then

has been suffering frustration and privation, has spent many hours in court attempting to regain legal custody of her child, and is being visited regularly by the Department of Welfare investigator. In spite of all this, she shows no psychotic symptoms and has been meeting her problems intelligently and realistically.

There is no available control group of untreated patients in similar diagnostic categories that could be used in this presentation. That makes all figures, especially those which describe conditions after several years, subject to comparison with only the clinical experience of each reader.

Several of the correlations noted cannot easily be attributed to one factor such as treatment, length of illness before treatment, original diagnosis, or condition immediately after treatment, because it is difficult to obtain large enough groups in which all but one of these factors vary.

The authors would recommend the following: (1) patients should receive adequate courses of treatment, both as to the number of treatments and depth of comas with (2) adequate psychotherapy, both during the treatment period and in the aftercare period; (3) larger treatment units should be constructed so that a certain number of chronic cases could also be treated without noticeably reducing the facilities for acute cases; and (4) definite research programs are needed so that all methods of treatment may be periodically evaluated and improved.

Summary

A long-term follow-up of schizophrenics who were treated with insulin shock therapy reveals the following:

1. There is no apparent difference between males and females in correlations between diagnosis, condition after treatment or at present, duration of illness prior to treatment, or the length of time and adjustment outside of the hospital after release.

2. Chronic cases are more benefited by intensive coma treatment than by light treatment combined with personal care.

3. Those who showed the most improvement at the completion of treatment have also shown the greater ability to remain in the community.

4. Acute cases appear to have a better prognosis than chronic cases. The five-year prognosis is poor for both acute and chronic, the acute cases still doing better than the chronic.

5. Some chronic patients who were ill over three years have made as good outside adjustments as have some of the patients with short histories of illness before treatment was initiated.

6. A certain percentage of chronic cases does respond favorably to insulin-coma therapy.

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TELEPATHY AS A FORM OF ARCHAIC COMMUNICATION*

BY A. M. MEERLOO, M. D.

It is a challenge to approach the problem of telepathy from the over-all problem of communication in animals and human beings. We are aware that civilization changes human ties and mutual relationships. The simple warning signs of animals change into the thousand-fold means of sign-relationship between men, who use sound, gestures, words—in all their minute variations—to gain mutual contact by way of these symbolic activities.

Nevertheless, we are aware that, despite our more or less objective sign-system of human communications, something primary is lost.

The word "communication" binds our frame of reference and way of thinking too much to our artificial three-dimensional, material system of communication. We require first a physical conception of how a communication comes through as something other than that which can be sensorily perceived, before we can accept it without feelings of anxiety. But the whole exploration of the unconscious, the conversation and communication between the unconscious minds of analyst and patient—especially in later analysis—carries us a little beyond this prejudice.

Our common fear of unexplored fields of knowledge, asks for a certain premature explanation; that is, to reduce certain mysterious facts tentatively to a more common frame of reference. We are in general blind for archaic extrasensory impressions; but a blind man can be made very well aware, intellectually, about all the processes involved in seeing and about the transport of light waves. In physics we talk about energy without having any perception-quality for energies. Even energy is a relation, as is telepathy. What the medium may be, only the future may teach us. We are able already to measure different electric potentials related to different moods and different functions of the brain, but whether they deal with the transport of certain messages we do not know yet.

In this connection, one may refer to Ferenczi's remark (Ferenczi, 1926) that unlimited communication is a fact in the inorganic

*Read before the Medical Section of the American Society for Psychical Research. April 7, 1949.

material world. In the different structured systems of energy and energy complexes, unlimited means of communication exist through a continuous exchange and transport of stimuli, electrons, ions, waves, and so forth. In death, previously living material is again united with the inorganic matrix. The problem of life is the problem of *separation* and structuration of energy complexes, as it seems, against the common laws of probability. The problem of life is the problem of that structuring principle, and perhaps the same observation applies to the stabilizing homeostatic principle of psychoanalytic theory.

Communication between organic life is, following Ferenczi, a unification tendency—a search for the lost union. We may compare it with the principle of "entropy" from physics or "Thanatos," the catabolic force from psychoanalysis. Ferenczi explains communication as a danger reaction, just as we find this phylogenetically in amphimixis, symbiosis, conjugation and sexual confluence as reaction to the threat of life. Anti-catastrophic confluence and symbiosis changed the aspects of organic life on earth, and communication should be a remnant of this anti-catastrophic need for unity.

Though these remarks are no explanation at all, they connect for us tentatively the relation between extreme danger and the increased need for communication.

In opposition to plants, a certain system of communication in animals is needed, because of the gradually greater individuation of the animal. A plant is never isolated from soil and matrix. The more differentiated the animal is, the more the new generation becomes biologically cut off and separated from the older generation. Love, fear and hatred are emotional traits of animals, related to the need for maternal protection on the part of the new generation, in the process of individuation; that is, in the process of being born again and again.

Here we also meet some roots of the relation between transference and communication, and of the individual's need for regaining contact with other individuals of the same generation. The common problem is how to bridge the vacuum between two living entities.

Among lower animals—as in insects and birds—we know that there exist all kinds of communication unknown to man. Some seem to be sensory, others extrasensory. Bats make use of super-

sonic sounds and echo effects. Bees make use of refined olfactory functions and dancing actions, in order to communicate direction. In recent years, several attempts have been made to explain such mysteries of sensual perception and communication as, for instance, the migration of birds, by simple electromagnetic "tropisms" (automatic orientation) by which birds are presumably sensitive to electro-magnetic fields. The theory is yet to be proved. Experiments indicate that even young inexperienced birds find the right direction to their winter quarters. Their nests, especially, make birds act like homing pigeons. The Mana shearwater returned in 14 days from Venice to its nest on an island near Wales, flying at least 3,700 miles over the sea (Griffin, 1948). Here we do not speak of communication as such but we touch on the mystery of utmost sensitivity for a stimulus outside the reach of man's actual physical-mechanical conceptions.

In dogs, we come nearer to the question of communication. The dog is a smell-animal; he lives in a world of smells. Especially in periods of heat his nose is in rebellion. However, there is more than merely communication through chemical smell. I remember my own little Scotty trotting back alone during the night along a complicated 60-mile route to his girlfriend in heat after we had visited her together by car that same afternoon. We have no physical-chemical conception of this communication or orientation. More difficult to interpret—by lack of symbolic means—is the direct psychological communication between dog and man.

Man is no longer a smell animal, though he has some rudiments of that old organ of communication, which plays a tremendous role in early childhood.

Ape and man became eye animals instead of smell animals. Man looks around instead of sniffing around. Our auditory communication is from much younger days and is still in the phase of confusion, as books on semantics seem to say.

What do we know about instinctive communication in man? What about the transfer of feelings and thoughts in a nonsymbolic and direct way?

Before the investigation of clinical telepathic experiences there were all kinds of "hunches" and magic fantasies about this form of human relationship. For the primitive mind there exists a continual transfer of feelings, and thoughts, not only toward man and animal, but also toward dead things (Frazer). What, however, is

the verified reality of extrasensory transfer of intrapsychic occurrences in man? One is aware of the direct subconscious relationship between mother and baby. Even when mother sleeps, the infant's movements are conveyed to her. One knows that in sexual play all kinds of unconscious communication takes place and that mutual sexual orgasm in particular is reached as a result of an unknown transfer of feelings. Artists are aware of the communicative function of silence, of the principles of harmony as a mutual exchange of unconscious communications. Experiences in hypnosis have brought out that it is possible to communicate thoughts to people without their being aware of the experiment.

However, we obtain the most convincing material from manifold experiences involving extrasensory transfer from mind to mind as has been described in recent years by Freud, Ehrenwald, Eisenbud, Pederson-Krag, Rhine, Tyrrell and others.

I do not want to give here a survey of their work. I only want to add my own clinical experiences because many honest facts must be added to what is already known in order to become clearer about the ways and means of telepathic communication. I always see as the focal point, the problem of communication: How can the physical and psychological space between individuals be overlapped? We know that it is consciously done through sounds, gestures and words, through infinitesimal details of signs, through all kinds of danger signals. But we know, too, that communication exists outside this sensory objective material. That will be the subject of our investigation.

Writing this down I feel, nevertheless, in myself, remnants of the resistance against the acceptance of uncontrollable heteropsychic influences. We may compare it with the same resistance that formerly existed against the acceptance of unconscious mental existence.* In our magic infantile period we wanted to be tied to the whole universe. In maturity, our ego resists awareness that its boundaries are continually invaded by forces and influences from outside. People never get completely rid of these attitudes as we may deduce from fervent reactions against the telepathy hypothesis (Ellis, 1947).

*The problem of resistance against the awareness of heteropsychic influences is especially of importance in social psychology, as is shown in my book *Delusion and Mass-Delusion*. Nervous and Mental Disease Monographs. 1949.

I. First Experience—1930 Zurich

In a circle of neurologists I was introduced to a well-known "clairvoyant" woman with whom we were to experiment that night. She was unknown to us and we were unknown to her—personally and professionally. I, myself, was a guest and foreigner in this circle.

She was to reveal facts out of the lives and families of the people surrounding her. That evening she told us that she had difficulty in concentrating. However, when she took my hand, she started to reveal many facts about my family—facts which I had kept hidden in a rather neurotic way. No one in this circle knew anything of the many nervous diseases in my family circle. That night this woman was not able to be clairvoyant with anyone else in the group.

My explanation was that my resistance against her finding the facts enabled her to have that extrasensorial awareness of what was going on in me.

II. The Case of an Engineer in Hypnosis

A dipsomaniacal engineer was sent to me for hypnotic treatment. He had been in analytic treatment with someone else but resisted the treatment with a cynical, critical attitude. Meanwhile, he was ruining his own and his family's life by his drinking bouts. During these escapades he became involved in underworld activities and incurred terrific debts. In normal periods he did not drink at all.

In the first hour—while I was debating whether to take him in treatment—he argued about his disbelief in all "scientific magic." He came only because he was sent by his superiors at the university and because his job was threatened.

He had a highly intelligent mind, always thinking in mathematical figures and technical terms. I could not start hypnosis at once but, because of the form his resistance took, tried to approach him in a more "scientific" way. I suggested that before we start working together he study some scientific books on hypnosis, e. g., Schultz, *Das Autogene Training* (which I loaned to him) and exercise relaxation and autohypnosis at home. After having studied, he was to come back. In two days he did come back. That very day he achieved a deep hypnotic seance. These seances were repeated and he was given the suggestion that he should not drink any more but repeat instead this autohypnotic training each time

the thought of drinking came up in him. Two weeks later I received a phone call from his wife that he had not come home that evening and that she was afraid that things were going wrong again. She did not know where he was. I did not feel at ease about the case and that evening while dozing off I had *a dream in which I was treating him again, fortifying my suggestions.*

The following day the patient entered my consultation room with a glad face, laughing about the joke. What had happened? The day before, he had been invited to the opening of a factory for which he had acted as technical consultant. It was in a distant town and it was very late by the time the official speeches were over. The guests were then invited to a hotel for a drink. There he became so overwhelmed by sleep that he could not resist renting a room, and the next morning he awakened fresh and well. I told the patient my dream, and he himself offered a telepathic explanation, because he calculated that my dream and his falling asleep must have happened at the same time. I received this theory with a rather skeptical attitude.

III. Second Experience with the Engineer

During a subsequent treatment this engineer entered a deep trance. At the end of the session when I asked for his experiences he began to explain to me the principles of the newer geometric concepts relating to the fourth and fifth dimensions.

At this time I had been involved in a study of "time" and had asked myself during the hypnotic session if it would be advisable to ask my patient for some theoretical explanations. However, I decided not to do so because this did not fit into the therapeutic situation. There also had been resistance on my part, because this patient, as a teacher, had just flunked some of my younger friends who studied under him at the university. Also, he had at first very skeptically renounced the idea of hypnosis, just as I had renounced his telepathic interpretation of our co-operation. That day I was very surprised, indeed, but was able to find an interpretation, only much later.

IV. Dream Troopship—February 13, 1943

In 1943, I was proceeding by troopship from New York to England. It was in the midst of the U-boat war, and we slept in our clothes to be prepared for danger. Our cabin was overcrowded, and sleeping on the rolling ship was very unpleasant.

One night I awoke in a state of anxiety from a dream in which I heard the voices of my brothers calling for help. *I was compelled to leave my berth to write down that part of the dream.* Before the war I used to record my dreams but had not done so for years.

The next morning the real situation that may have determined this dream came to me; my brothers *were* in the hands of the Nazi's and might be killed at any moment. I kept my notes and thought often of the vivid experience. When I entered liberated Holland two years later I verified the fact that on the very day on which I recorded my dream the Germans had entered the institution where my brothers were cared for, and transported the patients in the most horrible way over the German border; here they let gas into the wagons and killed both the patients and the nursing personnel.

From my own analysis I knew how ambivalent my attitude had always been toward my ill brothers. A mixture of latent homosexual ties and death wishes was still present. A telepathic communication had reminded me of them again.

V. Telepathic Dream—December 2, 1948

In the week preceding this telepathic dream I was vaguely aware of dreaming of my old home in Holland, and walking with my two older brothers. I told my wife about it, asking her, "Could I still be homesick for Holland?"

On the morning following the dream, before taking a bath, *I felt myself compelled* to go to my desk and write that night's dream down: "I am in my former home at The Hague (now destroyed by bombing) surrounded by terrible chaos. I must start my practice and receive patients, but nothing is ready. The room is near the attic (former playground with my brothers). In order to make things ready for medical consultations I hurry my relatives out of the room, my sisters are chased away, and I recall beating my brothers without pity (in reality I was the youngest and weakest). Then I begin my practice, glad that they do not bother me."

After my bath I went downstairs to get my newspaper and my mail. There was only one letter—from the Netherlands Red Cross, sending me the official reports and confirmation of my brothers'

gruesome deaths in German hands. (I had waited more than three years for these papers, which I needed in order to adjust some family finances.)

VI. Postscript—December 23, 1948

During the night I awoke and told my wife I had dreamed the same dream of beginning practice in The Hague and of having a fight with my brothers. This morning the duplicates of the letters from the Netherlands Red Cross arrived, sent this time by my father-in-law.

The last three cases are easily understandable if one takes into account the confusing, ambivalent attitude toward my brothers. My fear of the Nazis had been mixed with my own unconscious wish that they would pass the sentence I had thought out for my brothers in the past. My own narrow escape from Nazi hands had fortified my guilt-feelings toward them. The arrival of the telepathic communication and the actual reports acted as an anxiety-allaying wishfulfillment: "It is not *I* who wish to beat my brothers but the Nazis. *They* killed them."

VII. The Dream of Mr. B.

During his analysis, a patient told me of his experience 13 years before. He was in Europe and one morning awakened after a fearful dream, the contents of which he no longer knew. It was very early in the morning and *he felt compelled* to leave the hotel where he lived for a walk along the lake to calm himself. He was in a strange frame of mind; never before had he succumbed to such a sentimental mood. He went rowing in the early morning to see the sun come up, and here he burst out into "hysterical crying." At breakfast time he returned.

Back in his hotel he found a telegram that his brother had *died.*

He and his much older brother, who had reached a rather high position in their country, had always maintained a most peculiar relationship (my patient had meanwhile become a well-known writer). It was as if there were mutual competition, hostility, envy, jealousy and resentment superimposed upon a tender brotherly love. Soon after his brother's death, the patient experienced his first depression and was aware of guilt feelings.

VIII. The Dream of Professor N. N.—February 1947

One morning, I wrote down a dream about a former friend, an analyst and professor of psychiatry, from whom I had not heard in years. Immediately following the war I had written him a letter and never received any answer. In the dream: "He is a pilot of a plane, and he shows me the country. I have to hang under the plane with my hands clasped to a bar, and thus we fly. We go through underground passages and over mountains. Sometimes the plane flies so low that my feet are dragged through water and mud. Then he makes a landing over a beautiful landscape; we nearly kill a couple of fighting people and then arrive at a meadow near my old university town."

Two days later I received an unexpected telegram from my father-in-law asking me to send my credentials because a chair in psychiatry was open and he would explore the opportunities to get it for me (His aim was to have me back in Holland). The chair was vacant because Professor N. N. had resigned it. This telepathic dream only became clear to me a year later after a lecture by Eisenbud, when, following his suggestions, I went over my dreams, which were systematically written down, in order to find such relationships. I remembered the telegram and correspondence and was able to verify the dates. There was, of course, much more involved in the dream—in connection with my wish for a reanalysis and guidance during that period.

IX. Telepathic Experiences—May 12, 1948

This morning three patients brought me the following dream fragments.

(a) A nurse and social worker in analysis dreams of being called to a *crippled child.* She finds it strange because normally she does not help in neurological cases. She doesn't know to what to associate; she remembers some college lessons on the subject and the associations stop completely.

(b) The next hour a homosexual artist told me his last night's dream: He had to go to the analyst, but could not climb the stairs (the four flights to my office) because he was *on crutches,* so the visit had to be postponed. He associated resistance to be analyzed. He had hurt himself in a fight with a rather destructive partner. He was impotent even in his homosexual relations. The analyst

did not give him the crutches he wanted. . . . Then a silence and suddenly he reproached me: "Why did you not tell me that you got married?" He had just learned it from my secretary.

(c) The following patient, a woman in analysis for anxiety, sterility and conversion symptoms, brought me the following dream: She dreamed that she was sleeping with her husband and tried to awaken him for intercourse. He remained sleeping. Then her brother entered her bedroom through the window. He was limping peculiarly and she said to him, "Come to my bed; that is good for you." He slept on her other side and started to poke her with his penis from behind. She awoke with an orgastic feeling and beatings of the heart. She associated her brother immediately to the analyst. Recollections of anal masturbation came to the fore. Limping reminded her of her husband who stayed cosily at home only when he had a foot ailment. She wanted to have a baby by the analyst. She would be a better wife than all the girls of New York.

At the end of the morning the analyst reviewing the dreams of his patients felt rather peculiar. The first patient dreams about helping a crippled child; the second one walks on crutches himself; the third one wants to be impregnated by a limping image.

What kind of resisting attitude from the side of the analyst could have instilled these common images in my patients' minds?

That morning I had just come back from a short honeymoon, too short to suit me. This fact was not known to my patients. I had come back to my practice with a feeling of annoyance, though I knew that I had to return for some very difficult cases (none mentioned here). However, I myself had started my marriage trip with some divided feelings. I had been temporarily crippled myself four years ago by a flying bomb in London, and had in the initial phase of the cerebral paresis been afraid of being impotent. Last, but not least, my new wife was a physical therapist whose daily work was the treatment of cerebral-palsied children. So there were several resistance factors on my part in relation to the new experience and in relation to my work.

I explain the first dream of the social worker who did not know about the marriage as a latent homosexual transference to my wife. In the course of her analysis the patient had already transformed her transference into a latent homosexual attachment toward one of her colleagues.

The man, the only one who had known about my impending marriage without knowing the data about, or the profession of, my wife, protested in his dream against the intrusion into his homosexual transference.

The third dreamer, who did know about the marriage and who had a strong positive transference toward the analyst, identified herself in the dream with my wife. As a matter of fact, she became pregnant that night after a year-long period of sterility despite all kinds of attempted gynecological cures. Apparently her husband did awaken after all. It will also interest you to know that nine months later a healthy boy was born.

X. Last Case

A social worker was more than a year in analysis in which his very ambivalent attitude—particularly toward his younger brother—came to the fore. The children, not actual siblings, had been adopted by a very friendly and well-adjusted couple, who dedicated their lives completely to the adopted children. Nevertheless, infantile feelings of rejection led to all kinds of inner tensions, which had to be worked out in analysis. My patient was the particular recipient of hostility from the younger brother. The patient's professional insight was misused by the parents for advice about the younger brother, and the younger one considered this a psychological attack.

During a vacation trip in the Canadian mountains with a friend, the patient awakened with an anxiety dream. He decided to write it down to further his analysis. It was early in the morning, and because of his mood he was also compelled to telephone his parents. They told him that his younger brother had just had an accident and that he must return without delay. The dream itself was forgotten.

Discussion

If we review the cases mentioned here, we see how well Eisenbud's criteria fit into my experiences. The telepathic episode is a function, not only of the repression of emotionally-charged material by the patient, but of the repression of similar or related emotionally-charged material by the analyst as well (*Psychoanalytic Quarterly*, XV, 1946).

We may also apply Eisenbud's and Róheim's conclusion: that this disinhibited telepathic functioning is highly involved in the

Oedipus complex and is closely geared to the strength of sexual drives and sexual communication. Also, Ehrenwald's view that minus functions such as sleep, hypnosis, or clouded consciousness favor telepathic percipience is applicable to my cases.

However, I have experienced all kinds of subjective differences from normal dreams for which it is still difficult to find a good description.

In my personal experiences as a recipient of telepathic communication I have felt that something *special* had happened. I have felt *urged* to do something with the communication, to write it down, or to talk about it. This I never do with my other dreams. I have been alert, as though summoned. Some of my experiences were—as I try to explain to myself—rooted in my deep, ambivalent attitude toward my brothers as a defense against early sexual attachments to them. In the same way, I may explain the strange behavior of the patient in instance number VII. In the literature on telepathic communication one finds repeatedly the urge for communication going out from the dying, especially in violent death. It is a danger reaction. In collective fear, in panics, we find the same kind of telepathic communication. Until now, there has been no other acceptable explanation of the sudden mass cataleptic symptoms and panics as described in one of my former papers (Meerloo, 1946). Many of those collective archaic danger reactions are especially likely to happen in darkness and silence when we can exclude normal sensory perception.

Let us accept with Freud (Freud, 1922) that the telepathic communication comes through as part of the archaic instinct of communication when other forms of communication are congested or frustrated. Then we may make the tentative statement that in situations like the ones shown in the table that archaic form breaks through more easily.

This paper primarily calls attention to the problem of broken communication and the different ways and means by which contact is re-established.

The whole process of human communication, of bridging interhuman space, has received as yet little consideration in psychology. We are realizing more and more, that, parallel to the process of conscious thinking and speaking, all kinds of attempts at human contact are transformed into three-dimensional, optical and acoustical consciousness because these are our common tools of psycho-

Favorable Conditions for Telepathy

Increased Mating Urge:	Communication in the rutting period. Communication via smell. Communication via unknown media in animals. Communication in mutual orgasm.
Needed Intensification of Communication: (Explosion of communicative impulses)	Extreme danger and fear. Strong ambivalent relationship. Repressed hostilities (paranoia). Repressed sexual communication (falling in love). In compulsives. Hypnosis (Instance II). Sleep.
In the Family Relationship:	Broken biological unity (mother, baby). Siblings. Special relation in twins. Ambivalent sibling relationship. Broken early communication between mother and child.
In Cases of Physiological Decortication:	Schizophrenia. Brain disturbances (Ehrenwald: Telepathy and Medical Psychology. W. W. Norton Co. New York. 1948).

logical exploration. However, the unconscious still has contact with the four-dimensional, timeless and magic world which we are just beginning to explore with conscious means (Meerloo, 1948).

These conscious tools may be our difficulty, and perhaps our limitation as well. May my own experiences contribute to the exploration of this neglected field of human communication!

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SOME COMPARISONS OF PSYCHOTHERAPEUTIC METHODS IN SCHIZOPHRENIA

BY SAMUEL D. LIPTON, M. D.

Recently, efforts at psychotherapy in schizophrenia have received an important stimulus from the work of John N. Rosen.[1,2] Using a method he terms direct analytic therapy, he has reported remissions of psychoses in 37 consecutive patients who appeared to have poor prognoses.

In view of his work, it should be of interest at this time to review the reports of a number of other psychotherapists concerning schizophrenia and to compare the various methods, particularly since few similar attempts are found in the literature. In addition to Rosen's work, the reports of Federn,[3] Fromm-Reichmann,[4, 5, 6] Sullivan,[7] Brunswick,[8] Feigenbaum,[9] Glover,[10] Eissler,[11] Grotjahn,[12] Knight,[13] Kamm,[14, 15] Barkas,[16] Waelder,[17] La Forgue,[18] Zilboorg,[19, 20] Tidd,[21] Fenichel,[22] Reich,[23] and others, as well as some of Freud's pertinent contributions,[24, 25, 26, 27] were reviewed and form the basis of this communication. Gottschalk's review of this general subject[28] covers some of the same material as the present paper but deals with the problem more broadly and with a different approach, emphasizing similarities rather than differences in an attempt to find a generally acceptable treatment method. (A list of the publications reviewed is appended; but, because sources or authorities are not usually given in these reports, no attempt is made to give credit for priority or to cite accurately all the sources of agreement on any given point.)

In comparing the methods, five variables have been considered: first, the natural history of schizophrenia and, in conjunction with this, the duration of treatment; second, the life situation of the patient; third, the transference; fourth, the attitude of the therapist; and, fifth, the content of the therapeutic interviews.

In regard to the first variable, the natural history of the disease, little is said in these reports. In most of the cases reported it seems clear that the psychotherapeutic interviews were responsible for improvement, but the question of remission because of other factors sometimes arises, particularly when the therapy has been protracted. With the exception of Rosen's report, we do not have data showing how frequently psychotherapy is success-

ful. With few exceptions, the published reports deal with successfully-treated cases. The reason for this is evident: Those working in the field have consistently attempted to demonstrate the potentialities of psychotherapy rather than any of its limitations—which are already perhaps too widely accepted.

There is disagreement about the time required for treatment. Fromm-Reichmann and the Chestnut Lodge group use relatively long periods, and she states that since time has little significance for the schizophrenic, it is futile to try to hurry the treatment. Ruth Mack Brunswick, however, writes that for the same reason treatment can be very rapid. Using a technique similar to Rosen's she spent only two and one-half months in the successful analysis of a paranoid woman. Coriat[29] has reported good results with short analyses, and many of Rosen's cases have been short.

The second variable, the life situation of the patient, is considered by Federn to be of great importance. He holds that, while a neurosis can be successfully treated in an unfavorable life situation, a psychosis cannot be, and believes that the patient should have material security, a maternal helper, and a source of sexual gratification. Although other therapists do not stress Federn's requisites it is evident from their reports that they are often fulfilled, perhaps incidentally. Undoubtedly many of the patients who receive long-term psychotherapy are wealthy and have no material insecurity. In the hospitals where intensive psychotherapy is done, it is likely that the staff provides the type of maternal help Federn considers necessary. Rosen mentions that he uses two specially-trained nurses, and La Forgue used his patient's sister as an aid. Both Rosen and Brunswick mention the importance of sexual gratification.

Another factor in the life situation is stressed as an important therapeutic factor by Feigenbaum[9] (who quotes Nunberg) and Barkas.[16] This is the effect of permitting regression. The beneficial effect of relieving the patient of adult responsibilities and taking care of him as if he were a child has been noted with many types of therapy, and with intercurrent illness, and is probably a factor in spontaneous recoveries. It may have been a factor in the cases Rosen took care of for many hours each day and also may be a factor in cases hospitalized for a long time. Waelder[17] has described the beneficial effect of an opportunity for the sublimation of narcissistic wishes which may occur in certain socially ac-

cepted occupations, so this factor in the life situation should also be considered.

In regard to the third variable, it is generally agreed that the schizophrenic develops an intense transference reaction and that it is characterized by its sensitivity and ambivalence. Fromm-Reichmann has described the minutiae that may evoke a drastic response in the schizophrenic and the precautions she uses to deal with this problem. Eissler[11] writes that the schizophrenic's exquisitely sensitive perceptive system is probably regressive and normally repressed; and he considers this a crucial limiting factor in therapy, since the patient responds to stimuli that the therapist is not aware of. Freud[24] has said that paranoiacs are guided by their knowledge of the unconscious of others. Glover[10] says that the patient reads some of the unconscious tendencies in his environment with uncanny accuracy. Rosen offers the explanation that the unconscious of one person perfectly understands that of another. The consensus appears to be that the sensitivity of the schizophrenic's transference results from his intuitive regressive understanding of the unconscious of the therapist, and, if this is true, the importance of the therapist's unconscious, as well as conscious, attitudes is obvious.

The ambivalence of the transference is well known. The sudden change from love to hate is difficult to predict and forms a dangerous limitation to therapy, since reality-testing does not limit the schizophrenic's transference reactions. It is of interest that at least three of the patients Rosen reported tried, or threatened, to kill him.[1, 2] Glover points out that the transference of the schizophrenic is like the primitive connections to objects of the infant before there is a clear distinction of the outer world from the ego. This is before love and hate are distinguished, and would account for the ease of the later change.

It is to be expected that most therapists recommend precautions which should be taken against the negative transference. Federn states one must endeavor to maintain, and must not analyze, the positive transference. He also writes one must keep one's distance from the patient, must never keep him waiting, and must see him at odd hours. Kamm[15] emphasizes the importance of an early analysis of the negative transference. Fromm-Reichmann tries to be consistently understanding and as permissive as possible. Simmel[30] recommends that occupational therapy be used to

release the negative transference. Rosen seems remarkably able to tolerate these negative transference reactions. He does not refer to any special measure he uses to deal with the negative transference nor does he mention any patients who have run away from therapy in this phase.

It is worth noting that in none of the papers reviewed was the opinion held that the schizophrenic was actually inaccessible or did not develop a transference. Glover wrote that much of the alleged inaccessibility of the psychotic is really a proof of our own protective inaccessibility. He said we must understand the psychotic's language and must be able not only to translate it but to speak it fluently and that we must be prepared to get inside the psychoses, not stand outside in annoyance. Similar views are either expressed or can be understood in all the other reports and perhaps account for the general recognition of the transference by this group of therapists. For example, Grotjahn[12] states that the first goal in treatment is to establish communication with the patient, and since the narcissistically-satisfied psychotic patient does not have the same urge to communicate as the neurotic, one must take any active steps that may be needed. The therapist must leave the level of logical thinking and enter the level of primitive and magical communication. Grotjahn's own method in one case was to imitate the patient's stereotyped behavior. In others, he attempted by fantasy to reproduce hallucinations like the patient's to show he understood the patient's feelings.

The fourth variable to be considered is the attitude of the therapist. This is often referred to as the counter-transference; but a strict definition of this term would exclude the reality-determined feelings of the therapist. Many have recognized the basic importance of this factor—for the capacity of a therapist to treat a psychotic may depend on a special ability to deal with his own feelings for the patient. Some therapists hold that the therapist's attitude must be maternal, and many others make specific recommendations, such as being patient, permissive, understanding and protective, which could be included in the idea of being maternal. Federn says the patient seeks a maternal transference but cannot find it in a male therapist. However, he says, too, that he keeps his distance from the patient. Rosen does not keep any distance; in fact, he says he feels like a parent and considers his feeling one of the salient features of the therapy. Perhaps, then, the patient

can develop a maternal transference to a man. Others, too, have emphasized the importance of caring for the patient in a maternal way.

Eissler points out that excessive permissiveness is undesirable and may be a relic of the old punitive attitude, still implying that the patient's inferiority must be recognized. A case of Knight's[13] illustrates this point. He was at first completely permissive and, during the first six weeks of interviews, permitted his catatonic patient to remain standing even though his feet were swollen. Then he became less permissive, but more protective, and carried the patient to his bed. The therapy immediately began to progress more rapidly. He concluded that active firmness made the patient feel secure while too great indulgence left him at the mercy of primitive erotic urges and great anxiety.

The final variable to be considered is the content of the therapeutic interviews including the interpretations. Here there is considerable disagreement in the various reports, though one suspects the disagreement is more marked in the written descriptions than in the conduct of actual cases. On the one hand Fromm-Reichmann says it is useless to make interpretations, since the schizophrenic already knows his unconscious better than the therapist while, on the other hand, Brunswick wrote that she made the unconscious conscious as one would in a neurosis. Zilboorg[19, 20] states that a preliminary period of reality-testing is necessary, while Feigenbaum[9] dealt with dream-analysis from the beginning. Federn and Fenichel[22] consider that reality must be interpreted, that one must find the reality behind the expressed unconscious material rather than the unconscious behind the conscious, while Rosen says that every symptom must be interpreted down to its earliest roots in the unconscious.

In considering this apparent disagreement, an important distinction concerning the type of case must be borne in mind. In incipient, early, or borderline schizophrenics, patients who are not as a rule institutionalized, it is commonly accepted that it is inadvisable to make interpretations of unconscious material against which the patient is defending himself. In these cases, Federn states, more—not less—repression is necessary. If too much is interpreted the patient may become worse or become more overtly psychotic. Such cases are not infrequently mentioned, but detailed descriptions are not often found in the literature.[23] It

would appear that the so-called direct or deep interpretations of the unconscious are safely applicable only to overtly psychotic patients.

Another point which must be considered is the validity of the often-stated principle that the schizophrenic understands his unconscious. If this is true, then obviously the therapist who interprets what the patient already knows is wrong. In Freud's writings, however, we can find perhaps the clearest explanation of the fact that the schizophrenic does not really understand his unconscious.

Freud wrote that in psychosis the remodeling of reality is effected by means of residues in the mind of former relations with reality. The delusional systems are unpleasant, and this means that *this remodeling is accomplished in the face of resistance. The rejected reality exerts its claim* just as, in neurosis, the repressed drive does.[26] The turning away from reality may be exploited by the upward drive of the repressed in order to force its content into consciousness, while the resistances stirred up by this process and the tendency for wish fulfillment share the responsibility for the *distortion and displacement* of what is recollected.[27] It follows from this that the distorted and displaced unconscious drive is not directly understood by the schizophrenic, and Freud goes on to say[27] that the recognition of this kernel of truth might afford the common ground upon which the therapeutic process could be developed. The fragment of historic truth must be *liberated from its distortions and its attachment to the actual present day* and led back to the point where it belongs. Freud also said that a delusion is like a patch on the spot where originally there was a rent in the relation between the ego and the outer world.[25] From this alone, it might follow that the only significant interpretation would be of the loss of reality, but Freud's later expanded statement adds that the repudiated fragment of reality is replaced by another fragment already repudiated in the past and that investigation can connect the present repudiation with past repression.

To enlarge on the metaphor, the delusion may be only a patch, but it is not a random piece of cloth. The patch itself, when its source is understood, contains the approach and solution to the break with reality. The patch is the distorted unconscious. It must be accepted as significant and interpreted before reality is in-

terpreted. It can be concluded that interpretations both of the unconscious and of reality are necessary. The interpretation of the unconscious corresponds to the interpretation of defense while interpretation of reality would be that of the basic conflict.

Actually it is not easy to separate the two types of interpretations. Every interpretation is made to the judging portion of the patient's ego and every correct interpretation relates to reality since it pertains to something the patient really expressed or felt and therefore aids in forming logical connections or in reality-testing. However, using Rosen's published interpretations as an example, it is apparent that he not only interprets the unconscious, as he says, but also interprets reality. Several illustrations can be given. When the patient says he wants to throw himself beneath a train, Rosen tells him that this means he wants a passive sexual relationship with his father. Here he clearly interprets the unconscious wish which the patient had expressed symbolically and did not understand. In addition a reality interpretation is implied because, in effect Rosen is also saying to the patient, "You deny that a train is a train by believing it is your father." The interpretation of reality is more easily demonstrated when it is verbalized. When the patient says that being fed by his father with a spoon when he was an infant is like fellatio, Rosen tells him that this has no real connection with homosexuality but means only that he was dependent on a man. He points out the reality that was disguised by the verbalized unconscious wish. When he interprets a peculiar gait as a desire to be a woman, the main interpretation is of the distorted unconscious wish. The implied reality interpretation is that the patient only *wishes* to be a woman, i. e., is really a man. Rosen often interprets the reality of the patient's feelings for him when the patient wishes to deny them. Such examples can be found in other reports also, and it seems quite likely that other therapists do the same thing Rosen does, interpret both the unconscious and reality. To repeat, this follows the procedure which Freud, referring to projections, suggested in his *Constructions in Analysis,* that the therapeutic process would consist of finding the kernel of truth in the delusion or hallucination and liberating it from its distortions (or interpreting the unconscious) and its attachment to the present day (or interpreting reality).

Rosen's rapid, uninhibited interpretations, which make sense out of psychotic productions, serve an important purpose, pointed

out by many others. They mean he finds the kernel of truth and quickly participates in the psychotic reality. This is probably a vital factor in promoting the rapid development of transference reactions.

In summary, the review of the reports mentioned reveals that we do not have sufficient data to evaluate therapy in many reported cases and that we need additional reports of the systematic use of psychoanalytic therapy. To take into account various views, we should consider, in every case, the life situation of the patient, the regression permitted, his opportunity for narcissistic satisfaction and sexual gratification, and his relationship to significant persons besides the therapist. We know that the schizophrenic develops an intense transference reaction which is extremely sensitive, probably because of his intuitive understanding of the unconscious of the therapist, and which is also extremely ambivalent, presumably because of its primitive nature. He probably seeks a maternal transference and may be able to develop one to a therapist who is sufficiently protective, understanding and unambivalent. The therapist's ability to tolerate the negative transference seems important, and the amount of spontaneity or freedom that can be used appears to depend on the therapist. In overt schizophrenics rapid, so-called deep, interpretations of the unconscious are actually interpretations of defense and further serve the important purpose of participating in the psychotic reality of the patient and of promoting rapport. Under the influence of a positive transference the judging portion of the schizophrenic's ego seems to use interpretations in a manner similar to that of the neurotic—both to understand the unconscious and to improve reality testing. Rosen seems to combine an unambivalent maternal attitude, a remarkable tolerance for the negative transference, and a good understanding of the unconscious which enables him to make effective interpretations quickly. The method is well-named direct analytic therapy because he makes interpretations in a free, uninhibited, direct manner. The principles of the method and the content of the interpretations are not unique, and it seems likely that his success is due more to the transference which the patient can develop toward him and to his attitude toward the patient than to any other feature of the therapy.

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PRENATAL SYMPTOMS IN POSTPARTUM PSYCHOTIC REACTIONS*

A Preliminary Report

BY ROBERT SEIDENBERG, M. D., AND LEBERT HARRIS, M. D.

For hysterical maidens I prescribe marriage, for they are cured by pregnancy.
Hippocrates, *Aphorisms*—C. 400 B. C.

The symptoms associated with pregnancy have caused considerable speculation among mystics and philosophers as well as physicians. Also, the husband throughout the ages has borne the brunt of the natural eccentricities of the pregnant woman, for he often finds himself scurrying through the community in the dark of night in search of strawberries out of season or dill pickles to satisfy the whimsical demands of the pregnant spouse who is apparently, by nature or tradition, entitled to such indulgent treatment.

In a more serious vein, psychiatrists of late have propounded theories concerning the psychodynamics of various pregnancy symptoms. The vomiting of pregnancy, which has baffled obstetricians for years, has come under the aegis of the psychiatrist. Weis and English have stated:

"There are many women who for various reasons do not want to become pregnant. This wish may be quite conscious or quite unconscious. If the latter, it may be masked by conscious ideas of wanting a child; this is the kind of patient in whom the vomiting of pregnancy is especially apt to occur. Such patients unconsciously feel that being pregnant indicates that some sin has been committed or they feel that pregnancy may spoil their figures, interfere with their pleasure or add some unpleasant responsibility to their lives. Consequently, quite unconsciously, of course, they would like to rid themselves of the offending fetus. Their childhood phantasies suggest that pregnancy has taken place by way of the gastrointestinal tract and they conceive of the expulsion of the fetus in the same way. The education of later life on the anatomy of the internal organs does not change their vague, childish concepts of babies growing in the stomach and, therefore, unconscious mental forces vainly attempt to get rid of the baby by vomiting."

*Read at the interhospital conference, New York State Department of Mental Hygiene, at Syracuse Psychopathic Hospital, April 26, 1949.

W. C. Menninger (*Bulletin of the Menninger Clinic,* 7:1,21, January 1943) has stated that 50 per cent of obstetricians questioned by him regarded vomiting as a psychologically-motivated symptom in the great majority of instances. He further states that although vomiting is a more transparent symptom of rejection of pregnancy, other changes—such as irritability, tearfulness, sensitivity—may become exaggerated as other manifestations of this rejection.

Robertson (Robertson, G: *Lancet,* 2:10, 336, September 7, 1946) describes vomiting in a group studied by him as "*rejective dyspepsia.*" His study of a group of 100 cases of vomiting in psychoneurotic pregnant women suggests that this symptom may represent an emotional constellation in which disgust is predominant.

Robertson further postulates that the biochemical changes associated with pregnancy lower the threshold of the physical expression of a latent or subconscious disgust. In this, he takes sharp issue with the previously quoted authors who proposed the theory of "*oral rejection.*" Yet, it appears to the writers that the only difference between these authors falls within the realm of semantics. Robertson fails to elucidate on the point of "*disgust.*" Can we ask: "With what is the patient disgusted?"

Anthropological studies by Dieckmann (Dieckmann, W. J.: *Am. J. Ob. and Gyn.,* 36:623, 1938) have revealed a low incidence of hyperemesis gravidarum in native African tribes. Hall (Hall, M. B.: *Am. J. Med. Sci.,* 205:869, 1943) found that hyperemesis is unknown in Oriental countries with the exception of industrial Japan.

In a recent investigation of postpartum psychotic reactions, one of the writers was impressed with the paucity of overt symptoms which these patients had manifested during pregnancy. This was particularly true of the symptom, vomiting. This was indeed surprising in the light of present theory and current belief, since the psychotic patients (mostly schizophrenics) show phylogenetic regression and archaic symbolization. We would, therefore, expect to find florid symptomatology, especially oral rejection, in the pregnancy records of these patients. In order to gain more objective information concerning this question, the obstetricians who attended these women who later became psychotic, were asked to reveal any symptomatology noted—both of a physical and emotional nature. Letters of inquiry were sent to these obstetricians specifically concerning the presence of nausea, vomiting, anorexia,

headaches, pre-eclampsia, eclampsia, hypertension, suspiciousness, fearfulness, overactivity, listlessness, elation, euphoria and depression. They were asked further to classify these symptoms if present into categories of mild, moderate and severe and also by the trimester or trimesters in which they occurred.

The patients were women admitted to the Syracuse Psychopathic Hospital within a short time after parturition. All were considered by the staff to be postpartum psychotic reactions falling into groupings of dementia præcox or manic-depressive psychosis. They were unselected except for those qualifications. In this preliminary group, in which adequate replies were obtained, there are 19 cases of dementia præcox, and eight cases which are considered to be of manic-depressive psychosis. This group is small indeed, and the authors do not intend to make statistical claims on such a small series. However, in this group (See charts), it is apparent that prenatal symptomatology is not peculiarly pronounced; it is, in fact, perhaps no greater than might be expected from a "*normal*" group of women. In only two cases was severe vomiting noted; no cases of eclampsia were reported. In general, symptoms were more numerous among those diagnosed manic-depressive than among the schizophrenics; the manic-depressives, likewise, impressed the obstetricians with their "mental symptoms" more than did the schizophrenics. Mild nausea and vomiting, or nausea alone, was found in most cases in the first trimester, easing off thereafter.

Obstetricians frequently volunteered information such as "prenatal course was absolutely normal" or "patient was better than her usual self for first six months"; "she had a perfectly normal pregnancy" or "in brief, the last person in the world I would suspect of postpartum difficulties"; "condition unusually satisfactory during prenatal state and during labor"; "this patient's prenatal course was normal for all practical purposes."

The obstetrician cannot be expected to be acutely aware of fine emotional changes which would, perhaps, be apparent to those trained to observe them. However, no one can question the obstetricians' cognizance of, and concern over, physical symptoms. In this respect, except in one or two cases, their patients showed nothing of an unusual or extreme nature.

Discussion

In the cases studied, the woman who is to have a psychosis following parturition apparently does not utilize the mechanism of *oral rejection* or *disgust* to symbolize the expulsion of the infant. She is remarkably free during her pregnancy of any of the signs and symptoms indicative of oral rejection. We most certainly would expect a stormy prenatal course including nausea, vomiting and anorexia, indicating concentration of cathexis in the oral sphere. Nonetheless, no one can doubt that the infant is actually and symbolically rejected once the full-blown psychosis is manifested. In a recent study by Brew and Seidenberg,* it was shown that the rejection of the newborn was present in the psychotic ideation of the majority of 103 cases of psychosis following parturition. They cited cases in which the patient symbolically rejected her marriage, husband and infant. Other patients denied ever having given birth and re-enacted the delivery as if to desensitize themselves from a traumatic experience. In several instances, mothers attempted to end their lives along with those of the newborn. A few believed they had given their infants incurable diseases, others felt the infants were hopelessly deformed.

This apparent rejection of the child during the psychosis cannot be denied. Nevertheless, we do not find any evidence in the schizophrenics studied in the antenatal period, of the use of the classical mechanism of oral rejection, i. e., anorexia, nausea and vomiting, which has been ascribed to psychoneurotic individuals during pregnancy. This is particularly surprising since we generally hold that the regression of schizophrenics is more complete and deeper in phylogeny than that of the neuroses. We would, therefore, expect the schizophrenic to make good use of archaic and primitive thought constellations. Surely, it is common experience to find in the production of schizophrenics the overtly expressed ideas of oral insemination and reproduction. To many of them, the gastro-intestinal tract has been invested with sexual energy and even genitality. The close connection between the gastro-intestinal and genito-urinary tract is seen biologically in the cloaca of lower vertebrates. In Greek mythology, Pallas-Athene sprung from the head of Zeus—a tale which has obvious oral implications.

*To be published, J. N. M. D.

SIGNS AND SYMPTOMS RECORDED BY THE OBSTETRICIAN

CHART 1 D.P.

Patient	NAUSEA Trimester 1st	2nd	3rd	VOMITING 1st	2nd	3rd	ANOREXIA 1st	2nd	3rd	HEADACHES 1st	2nd	3rd	PRE-ECLAMPSIA 1st	2nd	3rd	ECLAMPSIA 1st	2nd	3rd	HYPERTENSION 1st	2nd	3rd	SUSPICIOUS 1st	2nd	3rd	FEARFUL 1st	2nd	3rd	OVERACTIVE 1st	2nd	3rd	LISTLESS 1st	2nd	3rd	ELATED 1st	2nd	3rd	EUPHORIC 1st	2nd	3rd	DEPRESSED 1st	2nd	3rd
G.L.																																										
M.L.																																										
G.W.	Mild	Mild		Mild	Mild		Mild																																			
R.R.	Mild			Mild						Mild	Mild	Mild													Mild	Mild	Mild				Mild	Mild	Mild							Severe	Severe	Severe
B.F.	Mild			Mild																																						
Z.H.	Mild						Mild	Mild	Mild		Mild	Mild								Mild	Mild													Mild			Mild					
L.H.							Mild																																			
M.S.	Mild			Mild																						Mod.						Mod.			Mild	Mod.						
E.R.																			Mild	Mild	Mild																					
K.B.	Mild			Mild																																						
M.T.	Mod.			Mod.						Mod.																																
H.S.																															Mild	Mod.	Mod.									
I.N.																										Mild															Mild	
I.B.	Mild			Mild			Mild																						Mild						Mild							
S.H.																																										
L.P.	Mild			Mild			Mild																		Mild	Mild	Mild															
D.S.	Mild			Mild							Mild			Mild						Mild																						
E.F.			Severe			Severe	Mild		Severe														Mod.	Severe		Mod	Severe		Mod	Mod	Mild											
M.S.	Mild						Mild	Mild	Mild	Mild	Mild											Mod	Mild	Mod	Mild	Mild	Mild				Mild	Mild	Mild							Severe	Severe	Severe

CHART II M-D. PSYCHOSIS

Patient	NAUSEA TRIMESTER 1st	2nd	3rd	VOMITING 1st	2nd	3rd	ANOREXIA 1st	2nd	3rd	HEADACHES 1st	2nd	3rd	PRE-ECLAMPSIA 1st	2nd	3rd	ECLAMPSIA 1st	2nd	3rd	HYPERTENSION 1st	2nd	3rd	SUSPICIOUS 1st	2nd	3rd	FEARFUL 1st	2nd	3rd	OVERACTIVE 1st	2nd	3rd	LISTLESS 1st	2nd	3rd	ELATED 1st	2nd	3rd	EUPHORIC 1st	2nd	3rd	DEPRESSED 1st	2nd	3rd
S.Z.	Mild																					Mild	Mild	Mild							Mild	Mild	Mild									
L.G.																																								Mod	Mod	Mod
G.W.																																										
E.P.	Severe	Severe	Mild				Severe			Mild	Mild	Mild																													Mod	Mod	Severe
E.S.	Mild			Mild						Mild															Mild															Mild		
G.B.	Mild																						Mild	Severe		Mild	Severe		Mod.	Severe				Mild								
M.P.	Severe			Severe			Severe			Severe	Severe	Severe										Mod	Mod	Mod	Mod	Mod	Mod				Mod	Mod	Mod							Mod	Mod	Mod
I.W.																		Mod															Mod									

This primitive idea is also held by children who express oral fantasies very freely. In their minds, the infant is derived from the mother's stomach and is delivered by way of the navel. Likewise, many young women, immature in their emotional development as well as deficient in proper sex education, hold the belief that pregnancy can result from kissing. This primitive idea has caused unmeasurable anxiety and feelings of guilt in these individuals.

Again, we are hampered in making any concrete deductions by our small series of cases. Yet, the findings reported, although not completely conclusive, give the authors the impression, as noted, that the oral route of rejection is not utilized by the potentially psychotic individual during pregnancy. Perhaps the pre-psychotic individual represses this oral constellation to the extent that the energy of rejection of the infant is stored up and manifests itself explosively following parturition, when metabolic imbalances lower the threshold of emotional resistance. The ego, bombarded by archaic instinctual impulses on one hand, and suffering the insults of physical depletion and metabolic imbalance on the other, can no longer resist, and disintegrates.

Summary

This is a preliminary report in which common physical symptoms during the prenatal period of women who later showed postpartum psychotic reactions were found to be conspicuous by the infrequency of their occurrence.

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DIRECT INTERPRETATION IN THE TREATMENT OF A CASE OF SCHIZOPHRENIA*

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This case is being presented to describe the manner in which marked improvement was obtained in a chronic case of schizophrenia. After 12 years of illness, the patient responded to a psychological approach even though previous organic therapies had been of little or no value.

The patient, "Mary," was an unmarried woman of 35. She came under the care of the therapist at the request of her parents who complained that she was behaving unreasonably and that they could not handle her.

Medical History. Her history showed no significant physical illnesses or operations. A questionable infection with gonorrhea occurred in her early 'teens. At the present time she is in robust physical health.

At the age of 23 she had suffered a schizophrenic breakdown marked by seclusiveness, irritability, preoccupation and auditory hallucinations. She was kept at home under the care of nurses and psychiatrists with periods of hospitalization when she became unmanageable. At the end of five years she had become so agitated and combative that insulin therapy was attempted. She was treated for four months; and this quieted her considerably, but at the end of a year she was again dangerously assaultive. Twelve electric shock treatments were administered; they left her "essentially unchanged" and still on a disturbed ward.

A gradual calming occurred over the next two years, and in 1944 Mary was transferred to a sanatorium where she remained almost continuously, except for occasional visits home, or to the seashore and the like. She was withdrawn and preoccupied most of the time, but periods of violence would occur without warning.

Family History. The father is an elderly man who is impulsive, irascible, domineering and uncompromising. He has been markedly successful in business and expects all members of the

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household to comply with his demands promptly. If crossed, he often flies into violent fits of temper. In spite of his wealth, he is extremely miserly, so that with both the nurse and the patient's companion he tried to haggle with respect to reducing agreed-upon salaries.

The mother is considerably younger than the father. She is stiffly self-controlled, with fixed Victorian ideas of social behavior, but, throughout the treatment period, she made more efforts than the father to understand the therapist in his interpretations of the patient's needs. The outstanding characteristic of both parents was their total failure to see Mary's point of view. Without guidance they tried to treat her like an annoying, unreasonable child.

There was one sibling, an older sister, for whom Mary felt deep affection. This girl had committed suicide in a depression after a few years of marriage.

Personal History. As a girl, Mary was described as friendly and likeable, but reticent, timid and troubled by feelings of inferiority, particularly in respect to keeping up with the social ambitions of her parents. She did only fairly well at school and did not complete high school. In the years before the onset of her illness she led an aimless, restless life, marked by several intimate relationships with men.

Recent History. In the spring of 1947, Mary's parents took her from the sanatorium, much against advice, and established her in a small house on a farm. She was placed under the care of an elderly, registered nurse who attempted to carry out the demands of the parents which were for the patient to lead a very subdued and decorous, but social life, mostly with older people. A marked source of contention was her desire to strike up intimate relationships with men. At one point, Mary walked some 10 miles to the house of an acquaintance, arriving at an early hour in the morning and asking to be taken in. She frequently dropped in to call on neighbors about six in the morning or would wander into someone's garden during the day and start picking flowers without speaking to the owners. These bizarre episodes caused considerable consternation. When the therapist entered the case in June 1947, the situation had reached a state of open warfare, with Mary stubbornly refusing to co-operate with anyone. She made frequent threats of violence to the nurse and, at one point, destroyed some

of her belongings. A considerable part of the management of the case consisted in efforts to find a more congenial companion for Mary and to lessen the interference from the parents.

It might be of interest to report the number of problems that had to be dealt with in order to achieve a healthier environment for the girl. No sooner would one issue be settled than another arose to take its place. At one point, in his notes, the therapist commented sourly, "These parents have a positive genius for finding ways to upset the girl and start fights." Another time he complained, "The situation seems very precarious. A three-way feud is going on between the parents, nurse and patient with the therapist hopelessly trapped in the middle and berated by all."

As mentioned, there were struggles over salaries of aides and over the parental restrictions concerning men friends. A most bitter and prolonged fight had to be waged to alter the expectations of the parents concerning the therapist's role. At first they would call him up—usually in the evening—to report some problem and state emphatically the manner in which the girl was to be changed. He was clearly a policeman to coerce the girl. The last thing in the world they seemed to desire was the clarification and compromise-formation upon which the therapist insisted. He would undoubtedly have been dismissed early, if it had not been for the fact that no other doctor seemed willing to take on the case as soon as he found that the girl was known to be violent and still under commitment.

The parents were very much opposed to drinking, even to the point of forbidding Mary to have sherry for her friends. It took a great deal of persuasion to convince them that more harm would come from "crossing" the girl than by reaching a compromise. A similar problem was encountered over an allowance for Mary. She greatly wanted a checking account, but this was firmly refused on the grounds that she was a spendthrift. Meanwhile the girl charged outlandish purchases to her family—which led to constant complaint. After much urging, a checking account was attempted and all bills sent to Mary. The result was gratifying beyond the highest hopes. In fact, Mary became so parsimonious that she even cut down on buying food so that the nurse frequently had to go out to get a square meal.

A completely unsuspected source of contention arose over the family chauffeur. Mary depended entirely upon him to get around;

and the therapist encouraged every possible widening of her life; but the chauffeur was overheard by the nurse angrily telling Mary to return to the sanatorium as she was too sick to be out. The source of trouble in this situation was never determined. To questions, Mary would only answer that the chauffeur made sexual advances to her. This was very probably projection on her part, as she absolutely refused to let the therapist attempt to deal with the situation. The chauffeur finally went to the family and threatened to leave if forced to continue to drive her. When the therapist protested, the parents were adamant in insisting that the chauffeur was to have his way. Fortunately no final showdown was ever necessary, as a companion with a car was obtained just in time.

One of the therapist's chief goals was to break up the vicious circle whereby Mary would make an unreasonable request, the parents would flatly refuse and she would fly into a maniacal rage. This behavior of the parents often seemed to be compulsive in nature, as they would assume blame for prohibitions even when they didn't have to. An outstanding example of this was in respect to Mary's driver's license. When she requested one, her father refused without any explanation. A terrific storm ensued. Once the therapist had explained the legal and insurance problems, leaving the door open for an attempt to get the license after a year's time, Mary was co-operative and made few further mentions of the matter. This was one instance where the parents seemed truly grateful for the therapist's guidance in how to shift the blame for prohibitions away from themselves and onto society. However, ignorance alone cannot possibly explain the repetitive manner in which they stirred up fights. They did not seem able to carry over their new knowledge from one matter to another.

Nothing less intense than unconscious suicidal drives could seem to explain the manner in which they would goad the girl into a blind, destructive rage even though they knew very well that she was potentially homicidal. It made the therapist's blood run cold with fear to hear the quiet way they would say to him, "Yes, you're right, she can become difficult. You know she hurt a nurse quite badly once," or, "It once took six people to hold her down." Then they would go straight ahead with some prohibition that would infuriate the girl. Their attitude was entirely too close to the literal sense of the phrase, "Only over my dead body."

The therapist constantly preached the need to give the girl "enough rope to hang herself"—that is, run up against the world at large, not merely her parents. Actually, when given her head, she got into no serious trouble, whereas the family constantly stirred up storms that seemed largely unnecessary. In his notes the therapist commented, "This week the nurse has finally been persuaded to turn her energies away from Mary and against the family. Consequently, she has been treated pretty reasonably and has responded in kind." This describes fairly well the most he had hoped to accomplish while he was still using a type of therapy based on environmental readjustment.

Course of Therapy. Early in treatment, Mary's manner with the therapist was quiet and polite, but elusive. Conversation was almost entirely concerned with neighborhood affairs and, if questioned about herself, she usually took refuge in irrelevant topics. Frequently, in the middle of a conversation, she would change to an apparently unrelated subject. At these times her condition resembled "boxcar" thinking. Often there would be foolish and inappropriate smiling. There were also periods when she was silent, preoccupied and seemed to be out of contact with her surroundings.

The following letter is a good example of the type of conversation that occurred in her interviews—a strange mixture of the reasonable with the incoherent.

Dr. Hayward;

When I go out anywhere I feel that people don't think I am enjoying myself that they think I am unhappy. I've just been listening to a comedy on the radio of a Psychiatrist and Mitsy Green and I think if I could train myself to laugh more all the time that it might help me. I might make myself happier that way. But then if I did it and it didn't work that might be just as bad. Ahem. I think I'll try to develope a sense of humor that way. Tomorrow Bill is taking me out that is I meant to say that he is coming up here at three and we are going to the Club. I am going to laugh a lot and then I'll write you how it all turns out.

8d

He tells me if I look at a newspaper or magazinewhile I typewrite I do better but I don't think I do so badly. what do you think.
It was awfully hot today.

The letter ended abruptly, as shown, with no closing sentiment, or even signature. The "8d" is very likely a psychotic symbol,

probably one of considerable importance since a line was reserved for it. At a later date, in a poem, she used the word "GOd" which might be related to this and in turn to feelings for her father. If possible this symbol should have been interpreted to the patient, but the therapist was not able to interpret it. The episode does show, however, that improvement can be obtained even if interpretations are not made to all available material. Another example of her cryptic and symbolized thinking is seen in the following poem.

Contentment.

Content to dream by the fire and wish for bettr days and bettr things.
Content to feel for others what you can't wish or feel for yourself.
A soft pile of dreams rising out of sleep to you if you be reaching there.
Ere the morning dawns a wish come true in sleep.
Sleeping is wishing then, in dreams come true.
Thought a majic lull of time.
My feet carry me on in sleep, and the day is bent double with my weight of dreams.
I am a walking dream, with my hands folded gently in a dream that touches lightly
On my heart and weaves a pattern for a day;
Hued with light and lightly lying on a living breath or from a floating dreamfull.
Content to feel again the swirling light hidden in the stream.
Content to watch the stars in the sky pierced into a new and rounder moon.
Content to float away and stand aside and watch myself return bidden to wanderlust
In dreams.

Auditory hallucinations were present, for Mary told of imagining that she heard a voice just as real as if someone had spoken. She avoided any attempts to enlarge upon this but apparently always maintained insight into the fact that this was a form of "imagination." For several weeks she maintained an extensive, angry, paranoid delusion that the nurse was responsible for her sister's death. This belief she based on the fact that the nurse was then sleeping in a room formerly used by the sister.

Since the people around her appeared hostile and unco-operative, the therapist decided his only hope for success lay in the establishment of the strongest possible rapport and, if possible, transference. Accordingly he chose the approach that she seemed

unhappy and that he would be glad to try to help her achieve a more desirable way of life. There was no mention of "treatment," at first, since she bore great hostility to doctors, due to feelings of having been dominated in hospitals. As she got to know the therapist better, she became increasingly demanding that he help her with her desire to get rid of the nurse and in her struggles against the restrictions of her parents. Much of the time the therapist could be little more than a buffer between the warring parties. The parents remained adamant about the nurse until Mary had twice been to the local police, asking to have her evicted, and finally had actively threatened her with boiling water. After this a search was instituted for a companion nearer Mary's own age and interests. Much of the time, however, it was felt likely that she would have to be hospitalized again since she appeared to be truly dangerous.

Meanwhile, Mary demanded more and more of the therapist's time until by July she was telephoning him up to six times a day and asking for frequent interviews besides. She also asked him to join her for trips, walks and the like—which was not done—though hindsight shows it would probably have speeded treatment to have granted her requests. The telephone calls came often at outlandish hours of the night, so that the therapist got the distinct impression that his patience and interest were being tested. Most of the time, Mary made no attempt to invent a reason for the call but merely showed a desire to chat about trivial matters in her daily life, such as gardening, walks or cooking.

Little material of real psychiatric significance came out in the early interviews which were conducted, as in the non-analytic treatment of neurosis, by questions or by urging her to enlarge upon subjects that she brought up. The interviews were very irregular since at no time would she accept an orderly plan of treatment, insisting on maintaining the arrangement that she would call the therapist when necessary. He attempted to arrange visits promptly whenever requested. Only rarely did she ask for help in understanding herself, and most of the time tried to keep the interviews "chatty." These were held at first in the therapist's office but soon were shifted to her home at her request. The number varied from one a week to daily and an interview lasted anywhere from one-half hour to two hours.

She did mention several times a dream of women stirring muddy water, stating that this was accompanied by sexual feelings, but she avoided all associations. She expressed some concern over masturbation but again could not be induced to enlarge on this. Another time she telephoned in an agitated state to tell of anxiety that followed seeing her nurse sitting with her legs apart; and she once reported using toothpaste instead of vasoline as a lubricant when inserting her Tampax. No interpretations were made of these episodes; and she evaded questions designed to clarify her reactions.

On August 1, 1947, two months after the start of treatment, Mary appeared irritated and for no apparent reason accused the therapist of being cruel. She then stormed upstairs in tears. During the previous week the therapist had come upon Rosen's article on the treatment of schizophrenics by direct analysis[1] and read it with great interest so he decided to attempt that technique of treatment, particularly since the transference relationship appeared to be approaching the intensity of those established by Rosen. Thereupon a direct interpretation was made to Mary that she loved the therapist and felt frustrated by him. Mary accepted this without comment but quieted down markedly so that the interview ended amicably and arrangements were made for another meeting.

Five days later she came over to the therapist during the interview and placed his hand against her groin. The therapist pointed out her sexual desire and urged her to discuss it. He also stated that his purpose was to help her to learn about herself. All this was accepted very calmly, although again without comment.

Mary now began to show evidence of a father-transference. One day she came to the therapist's house and asked his wife if she could speak to "your father." Actually Mary is older than the therapist. She also wrote the following poem for him on August 8.

Cherry Blossoms

I would like to be like that Cherry Blossom so full and sweet.
To feel the wonder it must feel when it's petals brush against the breeze.
To sway against the Heavens like the shadows of a soft white cloud,
To feel my fingers lightly touch the earth and to know my grip like thine is.
Sure and unshakable the beauty of a tiny atom takes me by the hand.
Thy hand is lost in truth and I am part of it.

The beauty of my roots sing surely to the sky and those about me stop to
Stare at me who know that GOd is all about me in purple flowers, and pink
and white. And I know the caress of the sun and the softness of the dark
Even in the night. But there is nothing that can harm me save the drought
Of day. Where Thou art there I shall be with Cherries even through
Eternity
Passing slowly into thought or sound perhaps
And space will be a multitude of many particles
There is that in me that glows to the sun and it's warmth subdues and
impells
Me onward stretching and glorying in my soul!

After she had been thanked for the poem, Mary began to talk about it. She told of her feelings that people are "atoms" and "pygmies." The interpretation was made that she was troubled by feelings of inferiority. This started her on a bitter tirade over the manner in which she had been "pushed around" in hospitals. There seemed to be a complete scotoma as to what types of behavior had led to her being restrained. She shifted to describe God who, she said, had become old and ill so that he stumbled frequently as he walked. ("This is your father that you are describing.") "Yes, and it also has something to do with myself." She would not enlarge further but it seems that identification of herself with her father was being expressed both in this statement and in the poem.

It should be pointed out that there are elements here that do not fit a father image at all well—namely, the terms "pink," "white" and "soft." These would be more applicable to a mother. Back of the transference reactions, Rosen always finds that the basic desire is for the mother, with the patient in the role of the nursing child. Apparently this drive was just beginning to appear.

At this time the therapist went away for a vacation, covering the last three weeks of August. Although the pressure of telephone calls and requests of various sorts had in no way abated up to the time of leaving, his substitute received no calls whatsoever from the patient, the parents or the nurse during the therapist's absence. Immediately upon his return, the calls returned to the previous level and the patient again made advances for physical intimacy. In response to an interpretation of this, she openly asked for intercourse. The therapist maintained his policy of stressing her need for psychiatric insight, but this did no good, for

she continued to put pressure upon him by telling of many men with whom she claimed intimacies in the past, including one of her former psychiatrists. When the therapist remained adamant, she tried to return to this man for treatment. However, he firmly turned her down. Finally, in one interview, she was reduced to loud, howling sobs, called the therapist a "real stinker" and asked to be returned to the sanatorium. The therapist remained unmoved, saying that he would be sorry to see her leave but that she must make the decision.

On September 4, during an evening interview, Mary suddenly stood up and stripped naked. She then threw herself upon the therapist and began forceful sexual advances. Due to fear and uncertainty the therapist remained immobile but, after the manner of Rosen, set up a barrage of interpretations. These covered chiefly the following fields: (a) that fear of homosexuality was driving her to excessive need for heterosexuality, (b) that fear of rejection and desire to control men drove her to excessive needs for intimacy, (c) that she used promiscuity as a method of disturbing her parents, and (d) that her greatest need in order to gain happiness in life was to establish some friendships not complicated by intimacy. Mary, however, continued to clamor for intercourse and berated the therapist as cruel for slighting her love. Finally a strong interpretation was made that she also was being cruel since she was obviously attractive and was making things very painful for the therapist who loved his family. She could not really love him as she claimed and still want to make him miserable. At this she quieted down and dressed, following which it was possible to go over the interpretations again. She asked to be taken for a drive. This was done, and the whole incident ended very amicably.

When visited the next day, she was quiet and cheerful. Her affect at all times was normal, and she spoke clearly of lack of training in self-control. No hostility or unreasonable demands were ever again expressed, nor was there any further complaint about the nurse. A few days later she talked at some length of feeling that she had wasted her life and inquired into the possibilities of several jobs. She stated clearly that her affairs had been too much tied up with her parents and that she should branch away from them. A more congenial companion was obtained by the end of the month and everything went happily for six weeks, with a marked

widening of interests and activities. When this companion had to leave in November, the patient procured by herself a full-time housekeeper and continued to maintain a quiet course.

Her life remained rather narrow and she associated mostly with persons somewhat older than herself. Her only outside occupation was teaching in the local Sunday school, most of her time being devoted to the piano, painting, walking and working about the place, with occasional trips to theaters and concerts. Truly remarkable has been her ability to avoid situations that would antagonize her parents. In the past, they used to call a psychiatrist or the family doctor at least once a week to complain about the girl, but no marked problem came up for over a year. Apparently this was chiefly due to an enormous reduction in her nymphomaniacal drives. These had led her repeatedly to strike up intimate relationships with men, with the result that her parents were constantly afraid of pregnancy. However, there was also an over-all improvement in the defiant-dependent relationship with her parents, a relationship which had reduced her life to a chronic state of civil war with them.

The reaction of the parents to this improvement has been very interesting. They have never expressed a word of surprise, approval or gratitude; in fact, it is not at all clear that they even acknowledge any marked change in her. Their attitude would seem to be that they had known all along that the girl could cooperate; and, if the doctor had only followed their advice, the results would have been achieved much more rapidly. Probably there has been a marked displacement of hostility onto the therapist—which would account in part for the improved relationship at home. Certainly some curious force was at work here, for at the end of September, soon after Mary began to settle down, the parents went without warning to a senior member of the therapist's hospital staff to complain about the therapist's bill. They got little comfort from him as the expense was small compared to some of Mary's previous regimens; and, anyway, real improvement was visible for the first time in years. The parents never spoke to the therapist again after this time and have subsequently refused to comply with repeated urging from the family doctor that they and the patient should keep in touch with some psychiatrist.

Mary's relationship with the therapist rapidly became distant. Upon several occasions he urged clarification of the origin of her illness but this she persistently avoided, saying she would like to be free of doctors to lead her own life. In October of 1947 she also began to talk of pressure from her parents to terminate treatment as soon as possible, because of the expense. The author has no way of determining the truth or extent of this parental pressure but the family physician has assured him that the parents have been quite adamant in their refusal to arrange any further psychiatric care. The inescapable conclusion would seem to be that they wish to keep Mary ill. She was last seen by the author on November 17, 1947, but psychotherapy had actually come to an end by the middle of September.

A senior member of the hospital staff examined her in April 1948. He described her as lucid, happy and enthusiastic but pointed out a curious child-like quality in her personality which caused her to resemble a girl of about 13 years. By this time she was living contentedly at the home of her parents, which seemed to be an unhealthy sign. Occasional reports, coming to the author from mutual acquaintances, appeared to show a steady improvement in her social adjustment. She obtained a driver's license and a car. In her relationships with people, she was described as able to hold a pleasant conversation without any of the irrelevant statements or lapses which formerly were prominent. A marked decrease in "wildness," as compared to her early life, was also apparent in that she seemed content to lead a quiet, average social life and drove her car more slowly than most persons. Unfortunately, the over-all impression would seem to be that she was "too good."

Mary maintained this level of adjustment until December 1948, when the family physician reported signs of restlessness and preoccupation. At the time of writing, this condition has improved somewhat and she is still able to live at home, but the indications are that she is again becoming schizoid. Although at no time could she have been called "cured" and much more insight will be necessary if a cure is ever to be obtained, at least she was able to move freely in the community for over a year without showing any violent or bizarre behavior. Such a thing had been impossible for more than 12 years.

Discussion

Several persons have questioned the therapist as to the manner in which he obtained the interpretations that were made, particularly at the time of Mary's sexual attack on him. Some have even suggested that he must be endowed with special powers of perception in order to have reached these conclusions. Consequently, it seems wise where possible to summarize the data which showed, or at least strongly suggested, the various drives pointed out in the interpretations. It is true that, in some instances during the treatment, an interpretation was made for which the stimulus was so uncertain that several possibilities were present. Outstanding here, was the first interpretation, namely the one that followed the patient's accusation of cruelty. The therapist cannot explain why he hit upon the idea of frustrated love. Very likely there was unconscious perception at work. Certainly we have to accept the fact that parts of our bodies, such as the liver, can function without being seen or felt—so may it well be for the unconscious. Many of the interpretations, however, can be explained on a conscious level.

(1) *Fear of Homosexuality.* This was inferred from several sources. Mary's promiscuity had always seemed rather compulsive in nature, while the only strong affection she ever described was for her sister. She became paranoid about the nurse when the latter occupied a room formerly used by the sister and was markedly disturbed by seeing the nurse sitting with her legs apart. Finally, as pointed out, there were indications that Mary identified herself with her father.

(2) *Fear of Rejection.* This was inferred from her tremendous need to keep in touch with the therapist by phone at all hours of the day and night. As soon as he left town on vacation, her need for "consultations" with a psychiatrist disappeared completely.

(3) *Need to Control Men.* This was seen from her efforts to return to her former psychiatrist when the therapist would no longer accede to her wishes. Up to this time she had had her way in almost everything. Certainly she had no need to turn to a psychiatrist for the purpose of intercourse alone, so the therapist suspected an element of blackmail.

(4) *Desire to Disturb Her Parents.* The parents were constantly and openly striving to force Mary to follow a mild, decorous round of social activities such as teas, weddings and formal

dinners. These ambitions contrasted sharply with Mary's actual behavior. Also the parents expressed to the therapist great fear of Mary's pregnancy. The one thing that seemed to do most to reduce their drive to interfere in the case was the therapist's telling them that, if it became necessary, he could arrange for an abortion on therapeutic grounds.

(5) *Need for Friendship Without Intimacy.* This was simply mental hygiene derived from the observation that Mary's acquaintances with men were usually limited to one intense relationship which occupied all her thinking. When the man of the moment would finally turn from her, Mary would be deeply disturbed, and one of her early psychotic outbursts followed such an incident.

* * *

The therapist has also been asked why he continued to struggle with such an unpromising situation. Many times he bitterly asked himself the same question. Certainly the financial return was in no way commensurate to the time and effort required. The truth is he was genuinely fond of the girl and felt deeply sorry for her. He believed he sensed in her "the eternal truth in the spirit of men"—that she was basically a fine person whose upbringing had been fantastically mishandled. She reminded him constantly of the desperate longing for love and a healthier life that Wylie[2] described so vividly; and, since most of her complaints were in large part justified, the therapist felt she very much deserved any help he could give.

Also, in spite of their infuriating peculiarities, the therapist felt very sorry for the parents. Never had he run into so much confusion and unhappiness that seemed so completely unnecessary. Finally, of course, once Rosen's paper had been found, the case became a perfect laboratory in which to test this new technique since all previous therapies had been of little value; and very poor co-operation at best was to be expected from persons in the environment. It was a tremendous relief to learn of a therapeutic approach, centered directly upon the patient, that could lessen the need to struggle over the interaction of a hostile environment with a sick personality. It was comparable to an epidemiologist abandoning efforts to purify the air in favor of procedures that could build up active immunity in the people themselves.

Hindsight shows an outstanding and very injurious error in the management of this case—namely the handling of the transfer-

ence relationship at the time of the sexual attack. The reader can see that the therapist changed abruptly from a clarifier into a forbidding moralist, saying in effect: "Get away from me, I'm married." Instead of this he should have continued to clarify the situation by asking, "Why do you like me so much?" and, "How will intercourse help you?"[3] At the most, he should merely have pointed out the reality that intercourse had occurred before without benefit and could not be considered as part of treatment for her illness. The course of therapy would thus have been maintained strictly as an interaction between patient and therapist. Bringing in his family erected a hopeless barrier for the girl. Guilt was aroused over her feelings, and no further opportunity was left for her to work them out. In a later case, the therapist found a still greater problem arising from even the slightest use of his marriage as an escape from intercourse—namely that the girl's compulsion to act out her Electra conflict was markedly accentuated by any hint that the therapist's wife stood between the patient and intercourse. Instead of being diminished, her desires for the therapist became even more marked.

In his defense the therapist can only point out that this was his first experience with this technique, while the transference drives in schizophrenia are so strong and appear so genuine that it is almost impossible, on first encounter, to believe that they are unrealistic and not basically directed at the genitals. In his next case, when the same situation arose, the therapist analyzed, instead of prohibiting, and soon discovered that the patient had a true illusion that the therapist was her mother. Instead of being interested in approaching his genitalia as first indicated, the patient actually began to search earnestly under his coat for breasts.

Mary's treatment cannot be considered at all complete, merely interrupted. It is sincerely to be hoped that she has not been traumatized too much and will return to treatment some day.

Conclusions

It is, of course, dangerous to discuss mechanisms in terms of a single case but Rosen has already reached certain conclusions which appear to be closely borne out here. First of these is the fact that patients suffering from schizophrenia can show a transference and a very powerful one at that. In this case the transference showed none of the fragility or evanescence which ham-

pered Federn,[4] Fromm-Reichmann[5] or Zilboorg.[6] However, it was of a markedly infantile, parasitic and narcissistic type. Judging from this case, a probable reason that transference in schizophrenia remained obscure for so long seems to be that this form of transference is a severe burden for the doctor to bear and cannot be handled as in the orderly treatment of neurosis. Furthermore, for the transference to develop fully, the doctor had to be willing to go through a period of trial and testing when the patient subjected him to all manner of unreasonable demands. Only then, apparently, did she feel secure enough to express her true feelings and longings without fear of rejection. There seems to be no choice but that the therapist may have to devote a great deal of time to the patient during the resolution of the psychosis. From this case, one got the impression that it is vital to play the part of a congenial friend and ideal parent, not that of an inquisitive physician. Besides his duties as a psychiatric adviser, the therapist had to teach Mary much concerning the difference between the pleasure and reality principles. He not only had to give her kindness, patience and understanding, but he had to show her he would always fight to see justice done. Office visits were never productive and appeared to delay treatment for she was always very ill at ease. However, if the parents had been co-operative, this girl could probably have been treated in a closed hospital with success.

As to the therapeutic action of direct interpretation, the situation is still uncertain. This writer was very much impressed by the fact that so long as questioning was used as the means of approach, little information was gained, and the patient would rapidly retreat into irrelevant conversation or silly smiling. As soon as the approach was changed from one of, "Do you feel such and such?" to, "You are feeling such and such," there was an amazing change in the patient's ability to express the emotion in question clearly and with good affect. It would appear that direct interpretation gives the patient the security of knowing that his wishes are already understood by the therapist and that he is not disturbed by them. Some members of the analytical school have criticized this technique as being "wild analysis," which it may well be, since the therapist must guess ahead of time the nature of the patient's conflict. However, in spite of the danger of error, this approach did bear remarkable fruit with a patient who otherwise remained inaccessible; and, since the probable sources of conflict

in the transference relationship are limited, the chances of error are not very great. Of course, the therapist must be fully convinced as to the validity of concepts concerning the mechanisms of the unconscious, for the conflicts of schizophrenia are primitive and brutal. In any case, the author rarely seemed to hit far off the mark, and fruitful discussion eventually followed the majority of interpretations made. The use here of the term "discussion" is rather euphemistic. Most of the time the patient seemed unable to talk about her conflicts but had a strong drive to act them out. What usually followed a series of interpretations was release of affect in a form of psychodrama which could then be clarified through further interpretations. Laforgue[7] also found these phenomena in his case.

Summary

Direct interpretation was used in the treatment of a woman suffering from schizophrenia, marked by seclusiveness and outbursts of agitation and violence. Paranoid and hebephrenic elements were also present. This condition had necessitated her spending the majority of her time in mental hospitals for the past 12 years. The shock therapies had been of little or no value. The use of questioning, as in the treatment of neurosis, showed the patient to be inaccessible; but, under direct interpretation, a dramatic release of affect was produced. After this had been worked through, the patient was able to settle down at home for over a year and move at will in the community without bizarre behavior. A continuation of treatment became impossible because of the hostility of her parents; and at the end of about 14 months, she began to show signs of restlessness and preoccupation.

Although treatment was incomplete and did not produce a final "cure," this case does show that a psychological approach can rapidly produce marked changes in a patient who has been considered chronically and hopelessly ill.

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A MULTIPLE-FACTOR PSYCHOSOMATIC THEORY OF SCHIZOPHRENIA*

An Attempt at a Consistent Conceptualization

BY LEOPOLD BELLAK, M. D.

The etiology and essential nature of dementia præcox, or, as it has been termed later, schizophrenia, has been a problem over which there has been much battling ever since the concept was created by Kraepelin. While the main cleavage has been concerned with whether the causative factor is of essentially somatic or of primarily psychogenic nature, a lively discussion has ensued over a great variety of more specific factors in either approach.

Kraepelin in 1898 formed the concept of dementia præcox out of a mass of undifferentiated psychiatric disorders; Hecker had spoken of hebephrenia in an adolescent in 1871 after Morel had described what he called "*demence precoce*" in 1860 in a 14-year-old boy. Kraepelin conceived of dementia præcox as primarily a metabolic-toxic disorder with circumscribed psychological manifestations, familial trend, beginning in adolescence or early adult life, and more often than not, ending in complete dementia. Bleuler, in 1911, coined the term "schizophrenia," describing this condition as a group of syndromes and disease processes, and preferring to refer to the disorder as "the schizophrenias." He did not believe that the disease began necessarily early in life or had to have a malignant outcome. While he contributed much to the psychopathology of the disorder—later, particularly under the impact of the early ideas of Freud at "*Burghölzli*"—he too, considered the schizophrenias as basically of toxic nature (as for example, Katzenelbogen points out[1]). Freud and Jung contributed basic insight into the psychodynamics of schizophrenia while Adolf Meyer stressed the quantitative deviation from the norm of psychological adjustment in schizophrenia. More recently, Sullivan[2] and Kasanin[3] were among the more outstanding contributors to theories of the psychological nature of the disorder. To date, none of the traditional conceptions of schizophrenia has led to a satisfactory understanding, prediction, or control of the malady. While

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the social importance of this most frequent and most malignant mental disease increases daily, the usefulness of this particular diagnostic label has reached a nearly farcical stage.

In connection with recent publications of the present writer,[4] there was occasion to review more than 3,500 papers concerned with the various aspects of schizophrenia. Clinical experience seen against this background led to the formulation of what the writer would like to term *a multiple-factor psychosomatic theory of schizophrenia.* This theory is presented in the hope that it will lead to an internally consistent view of the varied pictures of onset, cause, and response to treatment of the disorder, and will also lead to better prediction and therapeutic control.

Etiology

By "*multiple factor,*" one means that the clinical conditions, referred to as schizophrenia, really share only a certain number of phenomena but consist of a number of widely differing syndromes with a multitude of different etiological factors. In a review of the etiology the writer has found approximately 40 separate categories of possible causal factors in dementia præcox. These range all the way from anatomical, to biochemical, endocrine, genetic, infectious and neurophysiological factors to psychological ones and to a number of other elements. The number of etiological elements in schizophrenia which are asserted to be relevant or even proved, is outnumbered only by an even much longer series of therapies for the malady which are asserted by a variety of authors to be very successful. These therapies range from lobotomies to the injection of distilled water.

Some of these etiological studies have presented enough evidence to be considered very seriously. To this group, belong cases ascribed to apparently proved organic brain disease, such as were described by Ferraro,[5] Roizin, et al.,[6] and Polatin, et al.,[7] which show the clinical symptomatology of classical dementia præcox. Every older psychiatrist knows stories of patients who were considered typical schizophrenics until the spinal Wassermann test was introduced to prove them paretics. On the other hand, if prediction and therapeutic control are scientific proof at all of a hypothesis, a great many cases of schizophrenia have been described which were apparently of psychogenic nature, e. g., particularly interesting ones by French and Kasanin.[8] One is thus led to be-

lieve that the clinical picture conventionally described as schizophrenic is actually a syndrome or a reaction type associated with many and sundry etiological factors.

By "*psychosomatic,*" it is meant here that the etiological elements of different cases may be either primarily psychogenic or primarily somatic: but always both. The writer believes that the etiological factors of this syndrome may range from a hypothetically almost completely psychogenic nature to a hypothetically almost completely organic nature. The writer believes that it may be helpful to conceive of any given case as actually occurring on some point of a continuum from a hypothetical point of almost complete psychogenicity to a hypothetical point of almost complete organicity. One may take as a case relatively close to this hypothetical point of organicity one showing schizophrenic psychopathology associated with a known organic factor such as demyelinization, brain tumor, or even spirochetes in paresis. One could choose as a case relatively close to the hypothetical point of psychogenicity one in which the situational factors and the psychogenic dynamics are relatively manifest, such as is sometimes known to occur under constant attrition.

The writer believes that it may be diagnostically helpful to assign each case a point on the continuum, taking into particular consideration the relative prominence of (a) somatic predisposition, (b) socio-psychological predisposition (together constituting schizophrenic reaction type liability), (c) psychological precipitating causes, and (d) somatic precipitating forces. Currently, it might possibly be helpful to use the term "schizophrenia" where there is a minimum of somatic and a maximum of socio-psychological *predisposition;* and again, where—excepting acute toxic conditions—there is a minimum of somatic and a maximum of psychological *precipitating causes.* On the other hand, one might suggest "dementia præcox" for those cases with a maximum of somatic and constitutional predisposition and a minimum of socio-psychological predisposition or precipitating causes. Whichever, somatic or psychogenic, may be the principle factor—if and when that can be precisely determined—one must see this protean disorder as a Gestalt—a configuration— that always involves both aspects, the psyche and the soma.

In the instance of primarily psychogenic etiology it remains to be seen if some specific constellations could be found to be typical in cases later developing schizophrenia. Some dynamic work has been done on this by Despert[9] and others; on the more manifest levels in school children's performances such as the study by Kendig and Richmond,[10] and the extensive work of Wittman and Huffman.[11] One wonders if cases like those of the latter two do not constitute the early manifestations of those schizophrenics who essentially have organic disorders rather than predominantly psychological etiologies.

In those cases which appear to be of primarily somatic etiology, the series of possible factors will need to be ascertained—possibly by a battery of routine laboratory examinations of a large number of schizophrenics. Disturbances of the carbohydrate-lipoid metabolism, and finally detoxification will have to be looked for further—as much so as disorders of the reticulo-endothelial system, anthropometric factors, EEG abnormalities and other findings generally suggested.[4]

The writer firmly believes that research into the etiology of schizophrenia has remained so controversial, indecisive and unsuccessful because it has always been expected that a single factor for any random group of patients would be found. When research can be directed open-mindedly toward finding a multiplicity of causative elements responsible for the final common path of the clinical picture of schizophrenia, the result should be more rewarding.

Pathogenesis and Pathology

In keeping with what has been said about the etiology of the disorder, the writer believes that the pathogenesis and pathology can be conceptualized as either primarily somatic or primarily psychogenic in etiology. He believes that the outstanding factor in schizophrenia is a weakness of the ego, as Federn pointed out long ago, i. e., the constellation of those forces of personality which are concerned with reality-testing, mediating between the basic drives (the id) on the one hand, and the command of reason (the ego) and the internalized rules of society (the super-ego), and the externalized rules on the other hand. The degree of frustration tolerance, the ability to engage in detour behavior for the long range achievement of pleasure, are some of the aspects of the ego's

strength. How its strength can be decreased psychogenically or somatically is pointed out in the following.

Psychogenesis

The ego, as just defined, consists of a series of learned patterns. (It may be conceivable that familial genetic factors may predetermine its strength to a certain extent, but this is of no importance at the moment for us.) If we continue to borrow psychoanalytic terminology (and make somewhat unorthodox use of it) we may say that the new-born organism is under the sway of the id forces, combinations of genetic-developmental impulses. In the process of socialization the ego, as defined here, and the super-ego develop. By super-ego, the writer means the rules and regulations of society which the child learns (internalizes). The formation of the ego and the super-ego is a learning process and the characters of ego and super-ego are profoundly influenced by the life pattern to which the child is exposed. If the child is inconsistently handled, for example, and has little opportunity to identify with kind, responsible adults (ego ideals), his attempts at mastering his own impulses will be rewarded with but little success. Schematically speaking, his ego will be weak. Similarly, if the child is brought up with extreme severity, too many of his impulses will be repressed and, by the same token, will become more intense. The child will then come to see his world—his parents and the immediate environment—as punitive, dangerous, frustrating. The formation of a severe super-ego results, causing the child's relationship to the world to be poor. Now, given a fairly strong id, the compromise formations which the ego normally brings about between the id, the super-ego, and the reality demands of the world, cannot be performed by the weak ego.

In speaking of the unconscious, the writer does not venture into mystic realms such as Jung, for one, does. The unconscious, to the writer, means those early-learned habit patterns of which a person is as little consciously aware now as he is of his first attempts to walk and yet, which, nevertheless, may have an organizing influence on his conception of the world and his responses to it. If socialization has been inadequate, the young organism has never learned to perceive of the world as anything but a hiding place for dangerous monsters which became bigger by the projection of his own ill-controlled id impulses. By the same token, if

no strong ego has been permitted to develop by wholesome training and identification with proper ego ideals, then the synthesis and the compromise-formations necessary for conformity with our social patterns become impossible.

Actually socialization consists of a whole hierarchy of learning patterns superseding each other as time progresses. The ways of coping with a desire which were accepted at an early age are no longer acceptable in a more adult age. The perception of the world by the organism differs at its various stages of development and with it, its modes of adaptation. In the face of the failure of most recently-learned patterns, organisms return to responses learned earlier (Mowrer[12]), and we may deal with a manifest psychosis. The mental functions revert to the patterns of infancy and childhood, a process which has been described in detail by Piaget,[13] Heinz Werner,[14] and as applied to schizophrenia by Kasanin,[15] and Kasanin and Hanfmann.[16] In terms of the learning-theory, it becomes an entirely obscure argument to discuss to what extent schizophrenic productions are really identical with, or similar to, children's. However much regression to earlier modes of response may come about, there is no reason to forget that the expression of those early patterns is mixed with, superimposed upon, or coexistent with, relatively superficial ones adopted later. This has been experimentally shown to be so in work by Mowrer and Whiting.[17]

After having arrived at the idea that the psychological disturbances might result in the symptoms of a schizophrenic disorder, as well as causation by somatic brain disease, the writer was extremely happy to find corroboration in a paper by Mowrer and Ullman[18] on "Time as a Determinant in Integrative Learning." This is a theoretical paper which does not even mention the term schizophrenia. In it, Mowrer points out that a disturbance of the integrative function of the ego may be brought about in the same way by psychogenic or somatic cortical trauma. It was there that my attention was directed to a paper by Darrow[19] on emotion as relative functional de-cortication in case of severe conflict.

The foregoing might be a chronological account of a developing schizophrenic whose psychotic break occurs in adolescence. On the other hand, we could conceive of a somewhat better psychological adjustment in which it takes external emotional trauma to tax the ego's weakness to an extent where it cannot maintain its co-

ordinating function. Of course, from here on, it becomes purely mathematical play to match any given strength of emotional traumata with any number of differing degrees of ego strength. While all this is being said without precise possibilities for measurement, attempts to measure both have been made experimentally by those authors who have introduced the impact of trauma from painful electric shocks (Haggard[20]), and who have studied the effects of panic prior to fateful examination, and prior to execution (Luria[21]), on the integrity of functioning. It might well be understood here that the clinical findings of better recovery rates with sudden onset and better than ordinary pre-morbid history, mean simply that an essentially better-equipped organism (with a stronger ego which has broken only under extraordinary strain), has better chances for recovery.

Somatogenesis

The higher mental phenomena are linked to cerebral and particularly to cortical functioning. Thus, any affliction of the cerebrum may express itself in changes in the mental processes. The precise correlations between these two aspects have been under lively discussion before and after the work of Francis Gall, Fleurens, Fritch, Hitzig, and others. Today, Lashley's laws of equipotentiality and mass action of the brain, and Goldstein's Gestalt view of brain action merit much interest. Both of these have shown how subtly brain damage may affect the learning mechanisms in a broad sense. The writer believes it is entirely conceivable that a considerable number of widespread afflictions of the cerebrum may so weaken the co-ordinating and integrating mechanisms (which we subsume under the definition of the ego given in the foregoing) as to bring about the disturbances encountered in schizophrenia. Such afflictions of the brain could be of a histological, chemical, or genetic nature (histogenic, chemogenic, and genogenic, as Cobb calls them) aside from the psychogenic factors already mentioned. Besides the gross histological lesions frequently reported in the literature and cited earlier in this paper, the writer believes indeed, that the changes brought about by some cases of paresis could be thus understood: sometimes senile changes, frequently attributed to nonexistent arteriosclerosis, may bring about a psychosis without memory defects which is clinically indistinguishable from a schizophrenia

save for the unconventional age which may range up to 80 years. In principle at least, it can be conceived that rheumatic brain disease (Bruetsch[22]), or a disturbance in a carbonic anhydrase (Ashby[23]), or faulty liver metabolism (De Jong[24]), or, genetically transmissible defects (Kallmann[25]) may be the immediately responsible etiological factors in bringing about that final common path of loss of control observed clinically as thought-disturbances. It remains a matter for future research to map out just precisely which lesions may lead to the protean disorders of schizophrenia and which express themselves in other more circumscribed entities diagnosed as "definite organic psychoses." It will probably hold true that to a large extent, the resultant schizophrenic symptomatology may be vitally influenced by the character structure, i. e., the Gestalt of learned responses and the ability to remain psycho logically intact or disintegrate under the impact of a given organic defect. Even in the presence of a primarily somatic etiology, one must assume that a certain type of psychological development and structure is probably contributing in schizophrenic patients; this psychological structure is then accentuated and brought into full development by the organic damage; the personality changes associated with gross brain lesions in aphasia have been described in these terms by Brickner,[26] for instance. Thus, even though the immediate precipitating pathology may be somatic, psychological principles—and the psychoanalytic ones seem most useful—are still necessary to understand, to predict, and to treat the patient.

Symptomatology

The symptomatology of schizophrenia is wide and fluid, leading to many problems of diagnosis. Certainly, Kraepelin's classification of the four subtypes has been of little use in recent psychiatry since types are nearly always mixed, if not at one time, then throughout the course of the disorder. (Kant's investigation[27] offers evidence contradicting this statement which represents the author's and other's experience.) The symptomatology can best be explained, understood, and predicted if seen in the light of the pathogenesis; namely, as a result of the breakdown of the controlling and mediating action of the ego for primarily somatic or primarily psychogenic, or for both, reasons. The symptoms, then, resemble or are identical with, or constitute exaggerations of, phenomena encountered in such non-pathological states of ego weak-

ness as: cultural primitiveness, childhood, adolescence, sleep and the surrounding hypnagogic states, dream, bodily disease, and anxiety. In many years of study of schizophrenics the present writer has *failed to find any condition in them that does not exist to some extent in these normal states.* It is possibly true, however, that a prolonged schizophrenic disorder may bring about end results of deterioration which may be unique (Arieti[28]). The writer believes that Boisen[29] and Sullivan[2] have given the best description of the schizophrenic experience as related to an engulfing panic—with attempts at rescue in the catatonic fright reaction (what is called in German, "*Schreckstarre*"); a pernicious attempt at problem-solving in the paranoid configuration; and the attempt at a complete abandonment of reality-testing in the hebephrenic reaction. French and Kasanin[8] have described interesting cases of the progress of problem-solving and restitution of the ego function in the progress of delusions and hallucinations.

The Role of Anxiety

It is about the role of anxiety, both in schizophrenic symptomatology and pathogenesis, that more must be said. The author wishes to speak of *primary anxiety* as the anxiety which results from the incomplete mastery by the ego either of uncontrollable id forces or of self-destructive super-ego forces. This anxiety then, according to Freud, is a signal of the danger of disruptive action, inacceptable to the ego and super-ego. When, however, the beginning of this schizophrenic reaction has led to some disintegration, panic assails the patient in response to his awareness of strange new phenomena and his inability to cope with reality. One might refer to this latter as *secondary anxiety* in response to a deficiency state. The patient finds himself helpless against the demands of reality; this emotion is closer to fear (*Realangst*) than to anxiety. To start the process of restitution, the psychotherapist must address himself to this latter anxiety (fear) first by making himself understood by the patient and by making the patient feel that he himself is understood. Similarly, in a case of primarily organic etiology, one may find this secondary anxiety in response to a deficit state, just as we see it in aphasics and in other patients with brain deficiencies. One can understand in this light, the reports that aphasics have improved under the influence of sodium amytal

which released them from paralyzing anxiety. Thus, secondary anxiety may be a result of ego weakness and, only in turn, a cause of it again.

Diagnosis

If one accepts this conceptualization of the schizophrenic type of disorder, one can understand why the diagnostic problem has been such a thankless one. The clinician is called upon to identify a disease entity which does not exist as such and also to determine a special subtype which no more exists than the genus. We can recognize a clinical picture of pronounced characteristics commonly identified with schizophrenia as characterized by thinking disorders, emotional disorder and a narcissistic orientation with apperceptive distortions. This constitutes the final common path of phenomena associated with the extreme breakdown of the ego's function. Variations in pre-morbid history, onset, symptomatology, course of the disease, with and without treatment, are so great and so frequent that disagreement is the order of the day of nearly any diagnostic conference.

The differential diagnostic problems are particularly great where weakness of the ego must be appraised as to extent and relative "appropriateness." These problems are especially common in adolescence, as is interestingly pointed up in a study by Machover and Steiner[30] who found an abundance of so-called traditionally schizophrenic signs in the Rorschach, figure drawing and other projection tests in—for all practical purposes—normal adolescents. Similarly, it has become the fashion to call an ever-widening area of relatively severe neuroses and behavior disorders "schizophrenias," since of course a considerable variety of pathological pictures show a number of disturbances of ego strength. Future research must be concerned with testing ego strength and creating batteries of tests which allow differentiation, by their varied patterns, of the more benign types of disorders from the more severe final common path of the schizophrenias. Particularly, there must be test batteries of physiological and psychological nature such as are reviewed in the writer's book: the measurement of mental set under sodium amytal by Huston and Singer,[31] psychogalvanic skin response and studies of autonomic balance with mecholyl as described by Gold,[32] the sugar tolerance curves as described by Hoskins,[33] Katzenelbogen and Buchman[34] and by

McGowan and Quastel.[35] These may be combined with batteries of psychological tests including the Rorschach, TAT, figure drawing, and other projection tests, tests of thought disturbances, and the Wittman Scale. If the patterns are carefully studied, we may be able to differentiate those disorders grouped at present under the schizophrenias which are primarily somatic or primarily psychogenic.

Childhood schizophrenia is a problem all by itself. The present writer would prefer to speak of pre-adolescent psychosis—say, up to nine or 10 years at the most, and adolescent psychosis from there on. It is the writer's personal clinical impression that practically all the pre-adolescent schizophrenic psychoses have factors within them strongly suggestive of a somatic etiology. On the other hand, the majority of adolescent schizophrenias, with the median at the age of 12, seemed to contain predominantly psychogenic factors. The writer does not know enough about the course of these early, pre-adolescent, childhood psychoses in later life—that is, how much they later resemble clinical adult schizophrenias. In particular he does not know if the majority of Bender's findings[36] were in the pre-adolescent group. If it should turn out that her diagnostic criteria hold true mostly for the pre-adolescent group with a more manifest organic pathology and a course not leading to a typical adult schizophrenic picture, it might be well to differentiate this syndrome as Bender's disease rather than carry it under the name of childhood schizophrenia.

Therapy

Now we must attempt to view existing treatments of schizophrenia in terms of the theory of an ego weakness co-existent with great intensity of id impulses and a strong super-ego. Principally, we believe that therapy would have to consist of either strengthening the ego directly, or, weakening the id impulses or the super-ego.

Psychotherapy

A. *Psychoanalytic Psychotherapy*

Psychoanalytic psychotherapy, as practised in certainly widely differing manners by, for instance, Federn,[37] Sullivan,[2] Fromm-Reichmann,[38] and Rosen,[39] is generally concerned with decreasing the secondary anxiety of the patient by showing him that he is

understood and by helping him to understand his own impulses behind the psychotic manifestations. Indirectly, analytic therapy decreases the fierceness of the patient's super-ego by creating an accepting atmosphere and thus teaching him to substitute for the rigid, severe super-ego of childhood, a more lenient one. With removal of the need for repression, the id impulses are reduced in strength, since they are permitted to express themselves and perhaps are partly sublimated. In addition, the analyst helps the patient directly in reality testing and in deciding what is rational and what is not.

B. *Repressive Psychotherapy*

Sometimes, though not often, one finds authoritative, or even punitive, measures effective in bringing about a temporary disappearance of psychotic symptoms. In part, this may mean that—in view of, say, such cruel medieval methods as ducking and burning—the psychosis no longer constitutes a gratifying way of escape. Or, a reproachful and punitive religious approach may further strengthen the super-ego and help it overcome the id forces—temporarily, and probably to later detriment.

Occupational Therapy

Occupational therapy may help the ego to re-establish contact with reality; the performance of non-taxing tasks may gradually increase ego strength to an extent where it may possibly be able to deal more effectively with the id forces again.

Shock Treatment

There has been and is an abundance of theories on the nature of the effectiveness of the major forms of shock treatment. This writer has gone on record as saying that it may well be that no one of the shock treatments brings about a long-range improvement or recovery or even an overall decrease of the length of hospitalization; but it cannot be denied by anyone who has ever given shock treatment that it frequently does have an immediate, dramatic, beneficial effect. It is with this phenomenon that we are here concerned.

The writer believes, like a number of other investigators, that the common denominator in all forms of shock treatment lies in their effect on the brain cells. Without conclusive evidence, the

writer suggests that in insulin, electric and metrazol treatments and their modifications, there is at least a transitory change or if you wish, damage to the cells. This need not be on a histological level or at least not on a histologically visible level—as was recently pointed out by Winkler and Frank[40] again. The changes are manifest on the EEG and may possibly influence the enzyme metabolism of, for example, carbonic anhydrase. At any rate, the writer believes that it is the direct brain damage by the shock treatment and its influence on the id, ego, and super-ego balance that accounts for its beneficial effects. The exact nature of the process is, of course, still unknown and perhaps is not the same in all cases. After all, the shock therapies are still very crudely-guided procedures, and there are great differences in the nature and the cerebral course of even electric convulsive therapy, and wide variations in individual patients' responses to the treatment. At least schematically speaking, we might say that, in some catatonics, controlling areas related to super-ego functions were destroyed, and improvement might be ascribed to the decreased control. On the other hand, one might speculate that sometimes thalamic neurons may be destroyed, leading to a decreased emotional push, thus allowing a beneficial solution of the conflict to be attained. Donnadieu and Hauser[41] reported marked disturbance following electric convulsive therapy, suggesting thalamic involvement. Failures of treatment could be similarly accounted for: A patient may get more violent and disturbed if the treatment damages so much ego and super-ego control that the id is now practically unlimited in freedom.

These are certainly, only and purely, speculations. One can cite more substantial evidence concerning the specific effect of shock on the ego. Some years ago, it was pointed out by Rodnick[42] that the effect of electric shock seems to be a return from a more recently learned pattern to an earlier learned one. In other words, the ego leaves the psychotic compromise pattern for the one existing prior to the psychosis. This may lead either to a renewed breakdown following the previous course of the illness or to improvement, particularly in light of environmental and psychotherapeutic changes. Frosch and Impastato[43] with whose theories many of the writer's notions independently coincide, believe that improvement following shock therapy may be caused by the temporary establishment of regressive defenses of the ego, ensuant to the confusion caused by the shock. The ego, so to speak, gets a breath-

ing spell and is permitted some re-integration to a level higher than before the shock treatment. The writer can only add that he believes that a similar explanation may be correct for Kläsi's prolonged narcosis, namely, a breathing spell for re-integration.

Surgical Treatment of Schizophrenia

Lobotomy of all types, the writer again believes, is effective essentially to the extent to which the resulting changes balance the relationship of ego, id, and super-ego by affecting the organic substratum. In the patients who, after lobotomy, become excessively uninhibited, it may be postulated that the controlling functions—roughly related to the super-ego—have been extinguished in less radical fashion: If done less radically, the patient may adjust without a psychosis, due to decreased guilt. In one patient known to the writer, a patient who had had homicidal and suicidal impulses of uncontrollable strength, the lobotomy apparently interfered mostly with thalamic conduction: She was still aware of these notions but felt them without compelling force. Thus one might say that lobotomies decrease super-ego *or* id forces surgically, thus allowing the ego to form better compromises, provided the ego itself, that is the integrative functions of the frontal lobes, has not been too severely damaged. Thalamotomy—the recently reported destruction of thalamic cells by electrocautery under x-ray guidance—might be considered a direct attempt to decrease emotional impulses, the id forces.

Prognosis

It is one of the merits of a multiple factor psychosomatic theory of schizophrenia that it helps one to understand the confoundingly-wide range of prognostic possibilities in the disturbances which today are lumped together as schizophrenia. While the writer's survey, referred to in the foregoing, showed reported rates of overall improvement to vary from 22 per cent to 53.6 per cent, it should be understood that these figures are even more divergent than appears. Some authors may report that they had no recoveries at all, 5 per cent social recoveries, 10 per cent much improved and 20 per cent slightly improved, while some other author may speak of 30 per cent complete recoveries, and concomitantly higher figures for social recovery and improvement.

In essence it can probably be said that the better the ego strength pre-morbidly, the better the prognosis. That means that in view of good previous adjustment, or in view of a sudden onset of overwhelmingly adverse circumstances, the ego apparently had been good enough to withstand routine difficulties but broke only under special conditions. Thus it may also be presumed to have superior recuperative power. On the other hand, if there has been a chronic onset, because of a psychological setting unfavorable to the development of a strong ego, or because of an insidious, slowly destructive brain disease, the chances for recovery are poor.

Summary

A multiple-factor psychosomatic theory of schizophrenia has been advanced. The writer holds that the clinical picture presently diagnosed as schizophrenia does not pertain to a disease entity and that it is but the final common path from a number of widely-differing etiological factors. These may be primarily organic, such as faulty detoxification, rheumatic endarteritis, enzyme or carbohydrate disturbances; or they may be of primarily psychogenic etiology. Each case must be seen as the result of both somatic and psychogenic features. The common denominator in all cases is a severe decrease of ego strength to a point where the ego is incapable of mediating properly between id, super-ego, and reality; and there is a return, then, to more primitive patterns of behavior.

The writer holds that, if one will—with the aid of physiological and psychological test batteries—cease to consider schizophrenia as an entity and will search for different etiological factors in different cases, the problem of schizophrenia will be brought nearer to a solution, and better therapeutic and prognostic steps may then be taken.

Acknowledgment

The author is greatly indebted to Drs. Paul Federn, Hudson Hoagland and Roy G. Hoskins, who have been kind enough to read this manuscript critically. They made a number of very helpful suggestions which were incorporated and others which it was too difficult to include in this paper, or with which the author could not agree. Naturally, the author alone is responsible for any statement made in the paper. There is, however, one statement,

which Dr. Hoagland has permitted the author to quote from a letter. It states the present author's opinion more clearly than anything else: "I do not consider 'schizophrenia' a more specific term than 'headache.'"

The author wishes to take this occasion to express his gratitude to Drs. Federn, Hoagland and Hoskins for their interest, and his appreciation and respect for the pioneering work they have done in their respective spheres; it constitutes the foundation of much of the thought of the paper.

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MOTHER GOOSE AND THE GASTRO-INTESTINAL TRACT

BY FRANCIS J. MOTT

Note in Preface

The existence of a universal pattern of integration is the fundamental postulate upon which the following article rests. From this universal pattern is derived not only the fundamental polarity known as time versus space, but also the wave-forms of the atom and the forms of mind and society. The pattern is in essence simple, and may be described in terms of a polarity between nuclear and peripheral elements. In these terms may be described not only time and space, but also motion and immobility, positive and negative electricity, and male and female sex.

In reference to human thought and feeling, the author of this article sees configuration first appearing in terms of intra-uterine relations. Thus the fetus is the nucleus, and the uterus is the periphery. In the feelings of the fetal skin-surfaces for the maternal uterus, the raw material of thought and feeling are generated. At birth this configuration is rudely shattered, but it is gradually re-established in the gastro-intestinal tract of the newborn child. In this new locus, the gut plays the role previously played by the mother's uterus, while the contents of the gut assume the feelings once held by the fetus.

The above terms might be regarded as a description of the Freudian concept of oral-anal aggression, save for the fact that the author of the present article holds that the gastro-intestinal situation is not primary, but is a repetition (in reverse) of the uterine libidinal state.

The present paper is chiefly concerned to demonstrate that nursery rhyme and myth support this concept, a fact which suggests that what is an innovation for modern psychology was known in older times. Above all, the author feels that the rhymes of Mother Goose are essentially designed to aid the young child in his transition from the intra-uterine to gastro-intestinal feelings, and thus should be regarded as agents of psychological transition.

* * *

The thesis here to be presented is based upon an extension of the Freudian concept as to the nature and origin of the libido. Since this bold statement may be subjected to severe examination, it

seems advisable to offer the reader means whereby he may supplement the present information. Attention is accordingly drawn to two articles which have thus far appeared in the psychiatric press,* and also to three books, two of which are already published, the third being now in print.**

As indicated in the note in preface, the extended concept of the *libido* regards it as being generated before birth over the entire skin-surfaces of the fetus. At birth this configurational generator is shattered, and the libidinal structure is disintegrated, but it is gradually reintegrated by the suckling act and re-established in the gastro-intestinal tract. Through sheer association of affective *mnemonics* the gut becomes the successor to the uterus, and the contents of the gut take on the role which the fetus lost at birth. In this manner we all go through the strange experience of becoming our own mothers after birth, taking into our gastro-intestinal tracts the ego-feelings which once were identified with our own nuclear status *in utero*. In a word, birth *shatters* the intra-uterine *libido* but does not *destroy* it, for it becomes integrated after birth by means of the suckling act. If this statement be true, it follows that Freud, when he located the origins of the *libido* in the nutritive act, was actually identifying a *secondary* stage of the *libido*. The primary stage is that created *in utero* by the movements of the fetus within the maternal body. Mercifully, no configurational psychologist is today called upon to explain why such movements could create a quasi-electrical energy, for the discoveries of modern physics have made it clear to all that *substance is configuration.*

The present concepts have all been derived by careful dream analysis, and typical material of this nature has been adduced in the other writings mentioned in the foregoing. The present article is limited to an attempt to demonstrate that the "big dreams" of the human race yield considerable support for the ideas outlined. Such a demonstration, if in any degree successful, ought to be extremely impressive, since the material used has the advantage of

*A prenutritional libidinal stage. J. Clin. Psychopathol., 8:4; continued in 9:1. Also: The origins of the libido as a cloak of intrauterine affect. J. Clin. Psychopathol., 9:3.

**Biosynthesis: First Statement of a Configurational Psychology; and: The Universal Design of Birth. The David McKay Co. Philadelphia. 1948. Also: The Universal Design of the Oedipus Complex. The David McKay Co. Philadelphia. To be published early in 1950.

being highly objective and, hence, accessible to all. Although the present article focuses largely upon the stories of Mother Goose, it has been deemed of value to adduce symbolic material from an alternative source—the Old Testament of the *Bible*. The demonstration of a coincidence between three such externally unrelated sources as dream analysis, the *Bible* and the Mother Goose rhymes provides an impressive co-ordination of symbolic material.

The *Bible* myth selected is that of the story of Joseph, son of Jacob. This young man received a gift of a coat of many colors from his father. He was sold into Egypt, where he eventually came to supreme power. If this Joseph myth be analyzed in the light of the thesis outlined, it will be found to contain elements which tell the following story: 1. That the fetus "wears" a "cloak" of affect when *in utero*. 2. This affect identifies the fetus with its own father. 3. It confers upon the fetus a high degree of ego-centricity. 4. The "cloak" of affect is torn into pieces by birth. 5. The "pieces of affect" are drawn into the head orifices and so, eventually, into the gut. 6. In this way the ancient Oedipal feelings are located in the gastro-intestinal tract. 7. The fetal affect is remobilized in the gut by the mastery of the nutritional configurations.

In the light of these assertions, it is proposed now to analyze the *Bible* story of Joseph in tabular form, setting the interpretation roughly verse by verse beside the original story.

Bible Symbolism	*Interpretation*
"Now Israel loved Joseph more than all his children . . . and he made him a coat of many colors [or pieces]." (Gen. 37:3.)	The reference to the special love between Joseph and his father may well symbolize the fact that the fetus (judging from postnatal dreams) feels itself to be configurationally identical with its own father, for the reason presumably that the fetus is all male in respect to the uterus, and thus is identical with all maleness and hence with all fatherhood. This special relation between the father and the fetal feelings is further symbolized by the making of a special coat for the fetal son by the father. That this coat is the symbol of the fetal skin feeling is suggested by the fact that modern dreams frequently relate the uterine state to a robe of rainbow colors. This interpretation is heightened by the fact that some *Bibles* give the alternative description of the coat as being of "many pieces," and the further fact that modern

Bible Symbolism	*Interpretation*
	dreams also link the fetal cloak with small regular pieces, for which dominoes, eyes or small panes of glass are symbols.
"And Joseph dreamed a dream, and he told it his brethren [saying]: . . . behold, we were binding sheaves in the field, and, lo, my sheaf arose, and also stood upright; and, behold, your sheaves stood around about, and made obeisance to my sheaf." (Gen. 37:5-7.)	In terms of the harvest imagery, the fetus states his nuclear position.
"And he dreamed yet another dream, and told it his brethren, and said, Behold, I have dreamed a dream more; and, behold, the sun and the moon and the eleven stars made obeisance to me." (Gen. 37:9.)	The harvest imagery is here expanded to cosmic proportions. The fetus feels not merely that he holds a central position in relation to his family, but also to the very cosmos. This passage identifies the fetal feelings with the universal pattern of creation.
". . . they stript Joseph out of his coat, his coat of many colors that was on him; and they took him, and cast him into a pit: and the pit was empty, there was no water in it." (Gen. 37:23-24.)	Birth strips away the cloak of nuclear feeling, and casts the child down from the uterine waters into a pit that is waterless—that is, the outer world.
"And the brothers sat down to eat bread: and they lifted up their eyes and looked, and behold a company of Ishmaelites came from Gilead with their camels bearing spicery and balm and myrrh, going to carry it down to Egypt." (Gen. 37:25.)	If it be considered that the experience of birth opens the orifices of the head, and that it is ultimately through such an orifice (the mouth) that the affect reaches the gut, the symbolic meaning of the opposite passage may appear of consuming interest, for it contains elements which may well refer to the experiences of seeing, hearing, and smelling (breathing) and eating, all of which emphasize the opening of the orifices of the head. The eating and the looking are clear from the manifest content. The name Ishmael is derived from a word related to the act of hearing. The spicery, balm and myrrh are highly scented goods which relate directly to smelling and to breathing. But, above all, the name of Gilead is important, for it derives from a word which means "a heap." Now, the postnatal condition of the fetal skin-affect (or libido) is represented in modern dreams as existing in a chaotic and disorganized condition, or in a heap.

Bible Symbolism	*Interpretation*
"And they took Joseph's coat, and killed a kid of the goats, and dipped the coat in the blood; and they sent the coat of many colors, and they brought it to their father; and said, This have we found: . . . and he knew it, and said, It is my son's coat; an evil beast hath devoured him; Joseph is without doubt rent in pieces. And Jacob rent his clothes. . . ." (Gen. 37:31-34.)	The fetal personality is slain by birth and, being identical in feeling with the father, it feels that the father also has been killed. The cloak of many colors is rent in the bloody debacle of birth, and the father rends his clothes because he and the fetus are one in feeling. The beast who devours the fetal Joseph is, of course, none other than his own gut.
"And Joseph was brought down to Egypt." (Gen. 39:1.)	Through the acts of seeing, hearing, breathing and finally of eating, the fetal affect is carried into the head orifices and eventually into the gut. Egypt is a prime symbol of the gastro-intestinal tract. The long Nile, flowing down to the famous muddy delta, makes an excellent symbol of the fundamental tract. The names given to Egypt by its ancient inhabitants and by their neighbors heighten the probability that it was once known more or less consciously as a symbol of the gut, and especially as a fecal symbol. For we find that the Arabic name for Egypt has the general significance of "reddish brown," which color is found in dreams to be associated with feces. In the ancient language of Egypt and in Coptic, the name of the place is related to "blackness," the reference being supposedly to the blackness of the alluvial soil. That this may have fecal significance is suggested by the fact that another related Arabic word refers to "black fetid mud."
The attempted seduction of Joseph by Potiphar's wife. (Gen. 39.)	If the fetus *in utero* feels that its "cloak of affect" is paternal (that is, nuclear and male), then it is clear that the Oedipal battle really begins before birth. And if, as is asserted here, the affect is, after birth, drawn into the gastro-intestinal tract, then the Oedipal struggle might naturally be assumed to continue in this new locus. Dream analysis supports this concept, and the material of the Joseph myth indicates it. The very name Potiphar (Pet-P-Ra) signifies "Belonging to the Sun," which is surely an excellent symbol of the Father. Potiphar's wife, in such case, would surely symbolize the Mother.

Bible Symbolism	*Interpretation*
"And Pharaoh called Joseph's name Zaphnath-paaneah; and he gave him to wife Asenath the daughter of Poti-pherah priest of On." (Gen. 41:45.)	To this must be added the fact that when Joseph came to power he actually married the daughter of one Poti-pherah, which name is essentially the same as Potiphar. The symbolic implication is that the son marries the wife of his father: that in the human gut we solve the incest problem. The Moslems, in fact, have the story of one Yoosuf and Zeleekha, wife of Kitfeer, and the Koran states that after the death of Kitfeer (Potiphar) Yoosuf married Zeleekha. To this symbolism must further be added the fact that Potiphar is described in *Bible* commentary as "chief of the executioners"—that is, the castrating father. The name of Zaphnath-paaneah (Joseph's Egyptian name) is reputed to mean (in a Rabbinical interpretation) "The Revealer of a Secret." In other words, Joseph as the fetal affect working in the gut, discovers the secret of how to overcome the castration threat and to attain to unity with the mother without invoking the Oedipal threat of the father. To all this may be added the fact that the name of Joseph's wife (Asenath) possibly means simply "a storehouse," which could be taken to imply that after the conquest of the affective powers of the gut in its relation to nutrition, the gut becomes simply a "storehouse" (as the mother's womb once also was!), and with this aspect becomes forever rid of the Oedipal struggle.
The reunion of Joseph and his family in Egypt. (Gen. 45.)	The whole story of Joseph's conquest of the food shortage in Egypt, his power through dreaming, and his reintegration of his family in Egypt (the gut) speaks in powerful symbolic terms of the struggle of the fetal memories in the gut, and the manner in which, after a seven-year endurance (the seven lean years of Pharaoh's dream!) the patterns of the intra-uterine life (family life of Joseph) are remarshaled in the gut after the disintegration of birth.

It will be understood that the myth of Joseph is not put forward in any sense as proof of the correctness of the theory of the *libido* which was stated earlier. It is adduced as an instance of the type of mythical material which, when studied in the light of the new concepts of the *libido* here urged, may serve to indicate an ancient (and long lost) knowledge of the relation between an intra-uterine and a gastro-intestinal configurational condition. It is in this

spirit that attention is drawn to the New Testament story of the birth of Jesus. In the second chapter of the book of Luke we are told that the Bethlehem shepherds were informed that "This shall be a sign unto you; Ye shall find the babe wrapped in swaddling clothes, lying in a manger." If this statement be regarded symbolically, it may be re-stated in the following fashion: Every child at birth is wrapped about in disintegrated skin-feeling, and this is progressively laid in the mouth, or eating place, or "manger."*

The very manner in which the New Testament emphasizes this condition ought to awaken our suspicions of its symbolical nature, for the mere fact of a swaddled baby lying in an eating trough, though it might awaken some local interest, could hardly be in the ordinary way a matter of cosmic import. Yet here in the second chapter of Luke we are presented with the fact as a *sign* of the Christchild. The meaning becomes immediately clear if we accept the idea that the Christchild is the symbolic representative of Master (or Miss) Everybaby. In that case, granted the existence of the fetal affect and its introjection into the gut, we may see that the "sign" of Everychild is that it is born wrapped in fetal affect (swaddling clothes) which is progressively introjected into the gut (laid in a manger).

Let us turn now from religious story to the more humble myths of the nursery. As indicated by the title of this article, it will be shown that the tales of Mother Goose bear a close relation to the "gastro-intestinalization" of the fetal affect. Indeed, it may be suggested that the name Mother Goose is simply a veiled way of saying "Mother Gut," meaning that the gastro-intestinal tract has taken over the feelings for the mother. In this connection it should not be overlooked that in common parlance the stomach is often referred to as "little Mary." Since Mary, is pre-eminently a mother name, it is quite evident that the gut, as successor to the mother, might acquire a maternal diminutive, which is perfectly accorded in the term "little Mary."

As to the suitability of the goose, it will be conceded that the long neck of the goose, with its rather stomach-like body, makes an excellent symbol of the gastro-intestinal system. In the nursery rhyme of "Old Mother Goose" (which presumably may be taken as a kind of preface to all Mother Goose rhymes) we are told that:

*The word *manger* means simply an eating place—as the French verb will remind us.

Jack found one morning,
As I have been told,
His goose had laid him
An egg of pure gold.

The "goose which lays the golden eggs" has become a stock phrase, but it should not be ignored on that account as a perfectly splendid symbol of the gastro-intestinal tract. It will be remembered that:

Jack sold his gold egg
To a rascally knave.
Not half of its value
To poor Jack he gave:
Then Jack went courting
A lady so gay,
As fair as a lily,
And sweet as the May.
The knave and the squire
Came up at his back,
And began to belabor
The sides of poor Jack.

This would seem to indicate that the fetal affect, borne along into the fecal stream carries with it the libidinal energy which permits every Jack to go courting. But this energy is already partly sacrificed to "a rascally knave" (the castrating father) who is one with the "squire." It is this "rascally knave" who would prevent the courtship of every Jack by limiting or destroying his *libido*.

But Old Mother Goose
That instant came in,
And turned her son Jack
Into famed Harlequin.

Harlequin with his coat of colored squares is surely none other than the cloak of fetal affect (cf. Joseph's coat of many colors, or pieces!), and the plain implication of the rhyme is that when the growing boy is overwhelmed by the savage attack of that "rascally knave" (the castrating father), he is liable to retreat into the gut and there, as Harlequin, work out his *libido* with Columbine, the convolutions of the gut.

The gold egg in the sea
  Was thrown away then—
When Jack he jumped in
  And got it again.

The fetal affect must restore its relation with the fecal stream (golden egg) so long as it remains in the gut. One does not have to believe in astrology in order to note with interest the relation among the gut, the mother and the moon as centered in the sign of Cancer. It is significant to note that the ancients seem to have accepted this relation as a matter of course, and it may be presumed to find an echo in the final stanza in the rhyme of "Old Mother Goose":

And Old Mother Goose
  The goose saddled soon,
And, mounting his back,
  Flew up to the moon.

Evidently the Old Mother Goose (the uterine affect), the goose (the gut) and the moon (the female configuration) are here in harmony.

The reversal of polarity between the uterus and the gut is rather plainly indicated in the famous rhyme about "Mary, Mary, Quite Contrary," the words of which may without violence be interpreted as an effort to symbolize the "contrariness" (that is, the reversal) of the uterine affect when introjected into the gut. For it should be remembered that this whole thesis stands upon the concept that the affect of the maternal uterus is, after birth, introjected into the baby's gut through the nutritional act. And if the name Mary may be regarded as a primary maternal name, then the "contrary Mary" is surely the maternal (uterine) feelings introjected (made "contrary") in the gut.

Mary, Mary quite contrary,
  How does your garden grow?
Silver bells and cockle shells
  And little maids all in a row.

This rhyme presumably refers to the "growing of the anal garden" through the "female" feelings of the peristaltic rhythms. For if the gastro-intestinal tube develops its configurational affect through the nutritive act (that is, through the rhythmic act of

suckling), it is perfectly good poetry and hence perfectly good symbolism to think of the fecal "garden" developing through a constant sequence (all in a row) of feelings of uterine significance drawn by "contrary Mary" from the original uterine Mary. The "little maids" may be understood as the "little female feelings introjected into the gut through each act of suckling." The silver bells and the cockle shells have a not dissimilar symbolic value, since the bell is an orifice with a little nuclear clapper, and a cockle shell is an orifice from which the nuclear feeling (cockle or cock) has departed.

The Mother Goose rhymes contain several good examples of symbolisms evidently (in the light of this thesis) intended to evoke an unconscious memory of the "descent" of the fetus (or, more properly, of the fetal affect) into the gut. Of this *genre* are "Little Miss Muffet" and "Goosey, Goosey, Gander."

Little Miss Muffet
  Sat on a tuffet
Eating her curds and whey.
  There came a great spider
  And sat down beside her
And frightened Miss Muffet away.

The great spider in its web symbolizes, one may suppose, the fetal self caught in its cloak of fetal affect. And whenever the baby feeds, it is faced (at the oral level of consciousness) with the memory of this monster which must be devoured (introjected) into the gut as fast as that gut can be compelled to take on the uterine affect. Miss Muffet's fright is discernible in the child which rejects its food, for it can be shown that behind every psychological rejection of reasonable nutrition by a child lies this fear of the fetal life and its demand to be introjected along with the food into the gut.

Goosey, goosey, gander,
  Whither shall I wander?
Up stairs, down stairs,
  Or in my lady's chamber?
There I met an old man
  Who would not say his prayers.
I took him by the left leg
  And threw him down the stairs.

Here the question is as to the wandering of the affect. Shall it go upstairs (up the goose's neck, or gut) or downstairs, or shall it go back to the womb (my lady's chamber)? If it go to the last, it will find there the old man (the fetus) who would not "say his prayers" (that is, would not reassume the fetal position, because already disturbed by birth), and who must, therefore, be hurled down the stairs (the gut, or goose's neck) and thus become introjected into the gastro-intestinal tract.

The gradual development of the affect in the gut, by which the oral end is constituted female (mama) and the anal end is constituted male (papa), is neatly indicated in the rhyme which runs:

> The king was in the parlor,
> Counting out his money;
> The queen was in the kitchen,
> Eating bread and honey.

And the fact that the feces (popped forth at the male anal end) are constantly lost as a birth and castration re-enactment is surely plainly told by the succeeding verse:

> The maid was in the garden
> Hanging out the clothes:
> Along came a blackbird
> And nipped off her nose.

The maid in the garden with her nose nipped off is a neat symbol of the feelings of castration which beset the anal orifice as the uterine affect gathers there and brings to the excretory act its *mnemonic* impressions of an earlier "falling away" (that of birth), when the nuclear affect (maleness) of the fetus was "nipped off" by the "black bird" of birth.

Such considerations as these lead me to assert that in the new concept of the origins of the libido as a coat of fetal affect which is postnatally introjected into the gastro-intestinal tract, I am supported not simply by the evidence gathered from the dreams of present-day patients, but also by those big dreams of the race which are immemorially inscribed in our religious and secular mythology. Such considerations also lead me to assume that the so-called infancy period is more concretely described as the gastro-intestinal period, and that this is the period of life to which the tales of Mother Goose especially appeal, because it is the pe-

riod of the Mother Gut, when the affect of Big Mary (the uterus) is being introjected by the suckling act as Little Mary (the gastro-intestinal affect).

This concept of the libido as a "cloak of fetal affect" derived from the nuclear male affect of the father, explains quite simply why it is that every child feels he is guilty of his father's death, and why the introjection of the feeling for the father is the process of ego-formation, and is related by Freud himself with the totemic feast. The fetal skin feeling is the "father feeling," and this feeling is disintegrated by birth. By being born, therefore, we symbolically slay the father. And by introjecting that skin feeling (or affect) through the nutritive act, we devour the father, and so pass "him" (the paternal affect of the fetus) through the gut to the genital station, and ultimately to the cerebral station.* This is the story of Joseph, as it becomes also later the story of Jesus.

I submit that this new concept of the *libido* as a cloak of fetal affect which is destroyed by birth and reintegrated in the gut is the substance of all those myths involving the person of a dying and rising god who, being buried in the earth (feces) by being drawn into the gut from the fetal skin, is brought forth and lifted up the spinal tube to the head, where "he" appears as the ego.

Mark Beech, Edenbridge
Kent, England

*Space does not permit the explanation here in any detail of what I mean by the passage of the affect through the gut to the genital and cerebral stations. But reference to my book, *Biosynthesis*, and especially to Fig. XXXII therein, will make clear what is intended.

EDITORIAL COMMENT

STATISM—INFANTILISM OF SOCIETY

We think that it is time for modern society to get up from its infantile, pink posterior and stop wailing for a sugar-tit.

Weaning by a gob of sweet stuff tied in a rag has been—for these many years—a medically-discredited procedure. And an emotional sugar-tit, psychiatry has been preaching for a generation or more, is as much to be condemned as a physically-tangible one. Emotional weaning of children at an early age has been urged on parents by psychiatry for these past 20 years.

Wise parents, we believe, foster the development of feelings of responsibility, of decisiveness, foresight, courage, resourcefulness and strength in their children—and cut the Golden Cord early. Psychiatry has learned the need for early emotional weaning the hard way, by following intimately the lives of many thousands of those who have failed to mature emotionally—of those social misfits who suffer from "momism," infantilism and a long list of psychiatric disorders, of those forced by time to mature physically but who emotionally are still crying for sugar-tits. No mental hygiene effort has been more compelling than psychiatry's attempt to bring about a general striving toward emotional maturity.

But with this constructive effort toward mental hygiene, a contrary trend has developed—supported by our increasing numbers of infantile adults, fostered by naïve, or unscrupulous, or myopic political leaders—toward the same sort of dependency by society that we are trying to prevent in the individual. It is a trend which carries the schoolboy attitude into later years, to create a large class of emotionally—and economically—dependent adults, who, in their turn transmit their puerile attitudes to their children, bringing up new, flabby generations with infantile reactions toward life. The problem such an infantile social group creates is far more serious and more urgent than the combined problems which we recognize in tens of thousands of adult infants.

When an adult, as an individual, sinks back to the dependence, irresponsible behavior and need for the protection of babyhood, we put him in a mothering institution and take care of him. We call such an institution a mental hospital, consider its patients re-

gressed, and diagnose them as catatonic, hebephrenic, or alcoholic, as individual symptomatology indicates. When national groups of adults seek to return similarly to the golden age of infancy, they are prone to seek a not dissimilar institution. We may call this latter type of institution "statism," consider its inmates regressed and diagnose them as Communists, Nazis, Fascists, or even Socialists, as the national symptomatology indicates.

Hospitalization for the individual and statism are the same process on different scales; one is personal, the other national. But as the end results of the same infantilism, they are both of proper and of great concern to psychiatry. We purpose now, for reasons we think will be apparent to all intelligent observers of both world and domestic affairs, to make some general observations from the psychiatric point of view on certain rapidly-regressive trends toward statism.

It is fair to start a discussion of this sort with the frank admission that there is a semantic wilderness ahead. "Statism" is what the General Semanticists would call an abstraction of an extremely high order. If we may call Communism "statism$_1$," it is certainly not the same thing as Naziism, "statism$_2$." And "statism$_3$" is not "statism$_4$," and so on. One might as well declare at the beginning that what we aim to discuss here has no precise definition; one may cite, as indicating the general difficulties of defining terms in this connection, Mousheng Hsitien Lin's essay on "Antistatism" in *Psychiatry* a decade ago.* Dr. Mousheng's research is abundant evidence of the difficulty of even finding a satisfactory definition for "state," itself—without entering into the question of such matters as "statism" and "antistatism." We do not propose to discuss the "statism" of ancient Athens, of recent Germany or contemporary Russia—and most certainly not that domestic statism which is the subject of current political, cut-throat argumentation. That there is statism in America, we do not doubt; we can suspect, and very likely even demonstrate, the existence of Socialist statism, Democratic statism or even Republican statism, their locales and degrees of political realization depending on varying circumstances of time, place and political orientation.

One may ponder here, too, the spectacle of statism in its terrible, ultimate absurdity as satirized in Jack Williams' not so fantastic

*Mousheng Hsitien Lin: Antistatism. Psychiatry, 1:3, 4; 2:1, August and November 1938, February 1939.

recent novel, *The Humanoids.** The humanoids—fabricated, sleek, eyeless and invincible structures closely resembling men, are inventions of a far distant future. Machines, not men, they are controlled by a single motive, their "Prime Directive"—"To Serve and Obey and Guard Man from Harm." Directed by a "master grid," they dominate the countless inhabited planets of the galaxy, threatening the last few independent men with complete mental and physical stagnation. For the rebellious, there is "euphoride," a drug which appears to have some of the benefits of prefrontal lobotomy in inducing "peace" through child-like forgetfulness of one's troubles. Mr. Williams' novel is the tale of the last stand of the handful of "ungrateful" individualists who are bent on the preservation of the rights of men to make mistakes, to meet dangers—even to destroy themselves and their worlds if human intellect fails to control human emotion.

What we aim to discuss here is a trend, a trend toward a state of affairs we have been calling "statism" for want of a better name—a trend toward the Mother State, toward the return of *Magna Mater,* the White Goddess,** the punishing and rewarding mother who guards mankind, feeds, diapers, coddles or slays, watches over and regulates all human activity from the first feeble cry at birth to the ultimate silence of the grave. Mankind has a powerful, almost irresistible, need for shelter and protection. One may see it as an Oedipal need, an oral, a biological—or as a death need—for that unconscious craving for intrauterine comfort and protection may be fatal.

Man, as an individual, matures, grows beyond this need, through almost insuperable difficulties. His failures to mature fill our mental hospitals. Man, as a member of society, faces an equal task; his failures to mature socially have led to the dreaming-up of such societies as Plato's "Republic," and the actuality of such societies as the Incaic and Roman Empires, the Third Reich and the Union of Socialist Soviet Republics. Always, man seeks the lost, the irrecoverable mother—to create in the superstate, however different his real need may be, an image of the cruel, phallic, pre-Oedipal mother who punishes and regulates and suppresses from birth to death.

*Simon and Schuster. New York. 1949.

**Graves, Robert: The White Goddess, Creative Age Press. 1948.

We have no disposition to deny either the reality or the legitimacy of the impulse which turns men's faces toward *Magna Mater* —or her modern form of statism. Man's need for security is as real as his need for maturity; so is the fact of inevitable conflict between them.

What man may seek legitimately is to be found within the conditions of his own adulthood—an adulthood within the framework of an attainable and non-maternal security. We believe man possesses both the intelligence and the emotional capacity to construct a society in which he can develop without fear, and in which he can develop without either the swaddling clothes of infancy or the tether of the apronstring.

We do not propose here to outline either the conditions of such a society or the means by which to attain it; either is a task utterly beyond our capacity, and possibly beyond any present human capacity. Our ideal society must develop after many more centuries of tentative exploration and withdrawal, after many more generations of painful trial and error. What we propose here is, not to show the way to it, but to point out conditions which we must not accept, steps we must not take if we are not to bar, or make more difficult, that way. Primary at present among those unacceptable conditions are—we think—those unconscious and conscious trends toward the Mother State which we may characterize as statism.

One may conceive of the trend toward statism as a natural result of the evolution of our civilization. The history of modern Europe has been described as the superseding of Christendom by nationalism. As nations rose and grew prosperous, as achievement on earth began to replace, as a desideratum, reward in heaven, as general education led more and more men to see the inequalities of earthly rewards for earthly attainment, it was natural to look toward Mother State for returns which were less often sought from Mother Church. It is possible to suppose that modern trends toward statism evolved in Europe as a late reaction to the growing need for a Great Mother. It is also reasonable to suppose that they evolved in Europe rather than in the Western Hemisphere because the need for infantile security was less in the Western Hemisphere in the last few hundred years than at any time since European civilization began.

We of the present generation in the United States have just witnessed the end of a happy state of affairs. For many generations,

no adult American of average health and average intelligence has needed a fostering mother. Our economy was originally frontier and agricultural. It supported a modest group of mercantile, professional and industrial workers. For the non-professional who found no convenient place in store, blacksmith shop or farm, there was always the chance to "go west," a course millions found advisable many generations before Horace Greeley. There have always been accidents and misfortunes; but, a century ago, it held true in general, that an American who came to want in old age had only his own bad judgment or his incompetence to blame. There was always room and always means for a man, willing and able, to support himself and to attain security for himself and his children.

That this state of affairs existed was a matter of geography and economics. It seems heresy to many, but it can no more be attributed to the pure energy and virtue of Americans than the fast-dissolving great colonial empires of the modern world can be attributed to superior genes allegedly possessed by their European rulers. Our good fortune was due in large part to the fenceless prairie and the forest primeval, as European pre-eminence was chiefly due to coal, iron—and a society organized to take advantage of them.

The state of America, like the state of Europe, has now changed vastly—and to some of us almost incomprehensibly. But we can, if we will, see a challenge in these changes, to re-establish and make firm the bases of our own adulthood, of our own future and our own security within the framework of adulthood—or we can go wailing down the path of regression, seeking the comfort and irresponsibility of infancy with its sugar-tit, or even the ultimate and infinite protection of the womb. It is the contention here that if we do not guard our adulthood and our independence hardily, we shall find ourselves and our society on that regressive path, the path to infantilism and the Mother State. (Parenthetically, such regression means greater material cost, too—the Great Mother is an extravagant and demanding goddess—but this is another aspect of the story and one calling for separate and full consideration elsewhere.)

The Mother State, as we conceive it, statism, as we may call it, is dedicated to the overprotection of the citizen from life to death. Like the overprotective—and therefore cruel—individual mother

who watches every detail of her children's lives from bowel movements to street crossings, the overprotective state may be expected to become a party to all human activities from diet to earning of livelihood. The trend of statism is toward rigid regulation from kindergarten to burial. The perfect Mother State will dictate what education will be, what types of citizen will receive it, what adult occupations will be assigned and to whom, what compensation will be paid for occupational endeavors and what—parenthetically again—increased levies must be assessed against individuals to maintain the vastly expanded machine of government. The perfect Mother State will also dictate what its citizens will read, what they will do for amusement, even what they will think—or it will try to do so, as Germany, Italy and Japan tried, and as Russia is now trying to do.

Most Americans, we believe, are familiar with this unpleasant picture; and only a microscopic minority hope sincerely to achieve it—aside from the equally few in professional politics who are the cynical, not naïve, fellow-travelers, seeking maliciously, temporary personal advantage. The difficulty that most of us find is —in a world where state functions are necessarily and inexorably changing—to determine where acceptance of change is desirable or necessary and where the overprotection of statism begins. It is entirely to be expected, and may be entirely reasonable, for Americans of our day to seek the same type of security their fathers and grandfathers enjoyed. Our primarily agricultural economy is gone forever; the frontier is gone; the advantages our elders derived from those resources, our people now seek from private business and industrial enterprise—or from the state.

We think that the question of medical care may serve for illustration of our modern dilemma; it is not only as pressing a problem as any; but it is one where action, sound or unsound, is being imperatively demanded; and one where, as current British experience demonstrates, bad may easily go to worse in the face of public insistence. It seems probable that Americans in general—in the days of the old-fashioned family doctor—enjoyed as good medical care, in the light of the knowledge of that time, as any people in the world's history. That is, a person who needed a doctor got him; the wealthy, the poor and the "middle class" had theoretical, and usually actual, access to the same type of doctor and the same general type of care. It was not enlightened care according to our

standards, for medicine was just leaving the Middle Ages; but it was generally available. That this situation does not exist today and has not existed within present memory is a proposition which calls for no belaboring. That the American people are no more satisfied with it than the British people were with a comparable situation in Great Britain also needs no argumentation. It, likewise, seems probable that the Americans, like the British, will insist on doing something about it—even to the possible setting up of a system which, like that of Great Britain, degrades medical standards and satisfies neither physician nor patient. Exactly what steps will be taken or can be taken by people or profession to meet this situation forms no part of the present argument. It seems apparent that popular insistence on having more doctors and on the more general provision of specialist services and hospital care will continue to increase. It is also apparent that medical education is becoming, on the average, a poor investment economically; and it is apparent that a person with ordinary income can no longer feel assured of ability to meet the costs of prolonged illness. We believe that the medical profession is not only alert to the situation but is becoming increasingly aware that insistence on maintaining the good old days (which have, in fact, gone anyway) is no solution. Whether a satisfactory solution can be attained by the medical profession alone, by the profession with private endowment of some sort, or by some combination of effort between the profession and government is a matter to be discussed elsewhere. What we do want to note here is—as has been frequently pointed out—that government monopoly of medical care would be a step toward the Mother State, toward the statism which finds its logical culmination in thought police.

There is no argument here for or against any political party or even for or against any political system. It might even be theoretically possible—we do not know—to set up a Socialist society without statism. We do know the converse, that statism can be set up without Socialism; we have had practical demonstrations in Germany, Italy and Japan. As for Socialism without statism, we see little to recommend full public ownership of all means of production, even if we could escape the Mother State; but it is only fair to record that complete Socialism on a national scale has never been tried; Russian Communism is not socialization, common ownership for the common good, it is ownership of everything by the

state, including ownership of the people by the state. As a primitive, compelling force, the regressive drive toward the Mother State seems far more powerful than the intellectual attractions of Socialism.

But it is perfectly possible to consider the drawbacks of our existing society without agreeing that the alternative is statism. One can, for instance, point to the wrecking of the New England railroads of half a century ago as demonstrating as flagrant mismanagement by private enterprise as can easily be found in government; or one can point to the excessive power of certain labor groups as demonstrating dangerous weakness in government. One can also point to big business suppression—in the buying and filing away of patents—of highly desirable products or processes which threaten existing industrial practices or existing capital investments; and one can point to similar endeavors by labor to suppress labor-saving devices or nullify their use by feather-bedding. And one may cite highly undesirable monopolistic practices—whenever good opportunity presents—on the part of both capital and labor. But when one has done this, all he has done is to point to certain human weaknesses, and perhaps to the desirability of certain changes in business, labor and government. The danger lies in seeing more than is actually here, in seeing in every social and economic weakness, including those of government itself, the need for a fostering mother to guide, govern and overprotect us.

We think, in this connection, that we may usefully cite Dorothy Thompson's newspaper column of November 8, 1949. Concerning the dangers of the trend toward statism, which Miss Thompson calls "the servile state," she defines one of this country's greatest needs as a strong conservative movement; and she distinguishes carefully between conservatives and reactionaries. She quotes Peter Viereck's new book, *Conservatism Revisited,** to adduce the principle, among others, that conservatism means "preservation through reform." We ourselves would cite an older authority to define reaction and would paraphrase Candide to describe it as the conviction that all is [or "was"] for the best in this best of all possible words—and we would go beyond Voltaire to remark that the reactionary's slogan frequently seems to be, "And, by God, we won't change a jot or a tittle of it." Which, of course, is as infantile a reaction as the trend toward statism itself, and is

*Scribner's. New York. 1949.

even more idiotically unrealistic. To return to Miss Thompson, "The essence of conservatism is the recognition [that] power and privilege entail obligation in exactly equal proportions." We conceive that recognition of obligation is the first essential in combating statism by those of us who wish to conserve the very many good things in our society without defending fanatically the many other things in our society which are bad.

We conceive that people who are endeavoring to detect and combat trends toward statism are doing useful public service; and we only hope that "statism" does not become an indiscriminately-applied cuss-word, like "Communism" or "Fascism," hurled by opponents at the just and the unjust alike. We think that psychiatrists, regardless of political background or orientation, can do an important public service themselves in not only pointing out evidences of statism wherever they may be detected, but in endeavoring to make plain their infantile, emotional motivation. The endeavors of individuals to return to the uterus create serious enough problems without society as a whole attempting to do so. *Magna Mater* was a great and greatly-needed figure in another and simpler day; but she was a cruel mistress even then; Mother State should not appear to modern adults as either a great concept or a great need; and her rule is sure, eventually, to be one, not of fostering care, but of a relentless impoverishing cruelty worthy of the great prototype, *Magna Mater*.

BOOK REVIEWS

The Basic Neurosis. Oral Regression and Psychic Masochism. By EDMUND BERGLER, M. D. xii and 352 pages, with index. Cloth. Grune & Stratton. New York. 1949. Price $5.00.

This is a tightly-written volume, expounding, with a wealth of illustrative clinical material, ideas on orality and psychic masochism which Bergler has been presenting to the scientific world in numerous books and publications (including this QUARTERLY) for the last 20 years. "Fully aware of the possibility of being misunderstood and berated," says the author, "I would like to register *my conviction that there is only one basic neurosis and that neurosis is oral in genesis. All other nosologic groups, based on anal and phallic regression, are but rescue stations from the oral 'danger.'* "

Bergler thinks the child's (and the adult's) life is a running battle with passivity. In the historic phase of orality, the baby wants to "get," to experience oral pleasure in sucking. But the baby has also reacted to the breast as external aggression against it—as it has reacted to other forces and functions reinforcing infantile passivity. The baby defends with its own aggression, and the aggression flows backward against the child itself. Through stage after stage of development, the basic reaction of "I want to be refused" is established. This is the reaction of psychic masochism—which is not at all the same thing as perversion masochism—and it becomes the deepest stratum of neurosis in later years, no matter at what developmental "rescue station" the outward symptoms of neurosis are established.

"The latest in these rescue attempts from and *denial of passivity* in the boy is the famous *Oedipus Complex.* What it practically amounts to is borrowed strength from the father; the boy wants to act father's part and to demote the 'dangerous' mother to a passive being; *at bottom to an image of his own self.* The *reversal of the roles is perfect*: here *mother* is *passively penetrated* (as once the child was orally-anally penetrated); the active penetrating is done by the child. A perfect setting for an alibi. . . .

"Nobody denies, of course, that hysteric and compulsive neuroses do exist *clinically.* So do a dozen other neurotic diseases. What is questioned is not the undeniable clinical fact. *What is questioned is the correct application of the connecting links between oral, anal and phallic phases.*

"That these connections do exist, has been known for a long time to more discerning and less naïve analysis. . . .

"What I claim is something different. *I claim that 'remnants' from the oral phase are not carried around later in life like sentimental baggage, or*

a souvenir. I claim that the 'later'—the anal and phallic phases and what follows in neurosis—is not understandable without taking cognizance of the fact that these phases are but rescue—and survival attempts from the oral danger.''

The excerpts are, admittedly, neither satisfactory as a summary nor even as a sketchy representation of Bergler's views; but this reviewer feels they come closer than any paraphrase he might attempt. The author has no illusions about the reception his work is likely to meet. He notes that new explanations in psychoanalysis are hailed joyfully by those who wish to reject psychoanalytic findings; or, if so genuinely Freudian that they cannot be used to bolster inner resistances, are ignored or rejected angrily as ''complicating 'unnecessarily' a complicated problem.'' He foresees that his more ignorant critics will react in the first fashion, his more discerning ones in the second.

This book, written, as the author explains, because he is tired of constantly explaining ideas on orality and psychic masochism and can now refer questioners to this record, should be somewhat more difficult to ignore or reject with anger than are isolated scientific publications. The reviewer thinks nobody, whether merely a student of mental phenomena or practitioner, will find Bergler's volume easy reading. It maps a very steep path; but it maps it clearly; it is a path which one of determination and good will should be able to follow.

It may not be necessary to point to the tendency in some self-styled orthodox quarters—a tendency which Freud himself would surely have abhorred and which is most curious, besides, in the light of generally accepted principles of modern scientific procedure—to consider Freud a sort of psychological Aristotle. If the father of dynamic psychology said it, even in his early days and though he contradicted or qualified it later, the thing must be so. The enemies of analysis have not been slow to borrow this technique of the orthodox; Bergler points to the general neglect of Freud's discovery of Thanatos, the death instinct, by those anti-Freudians who still delight in the canard that Freud was obsessed by sex. Concerning orality and psychic masochism, he notes: ''Freud, who was a clear thinker, finally made the necessary step half-heartedly and described the pre-oedipal phase, though only in 1931. Many of his followers, however, did not have the psychic elasticity of Freud at the age of 75!''

In *The Basic Neurosis,* Bergler supports the further steps he himself has made with a weight of clinical material too carefully compiled for critics to reject summarily and far too massive to ignore.

The Track of the Cat. By WALTER VAN TILBURG CLARK. 404 pages. Cloth. Random House. New York. 1949. Price $3.50.

"The black panther that dominates Walter Van Tilburg Clark's new novel is an embodiment and evocation of evil. It is a force, elemental and supernatural, that must be hunted and destroyed."

The story revolves around two brothers and an Indian who hunt the cat with relentless intensity. A father, mother, sister, another brother and his sweetheart are inextricably involved in the life and death struggle. Neither the hunters nor the hunted are victors; they are merely participants in the perpetual conflict between evil and good.

This novel is extremely interesting and holds attention and interest throughout. The author has an easy style of writing.

The Growth Concept of Nervous Integration. By DANIEL E. SCHNEIDER. xi and 142 pages. Cloth. Nervous and Mental Disease Monographs. New York. 1948. Price $5.00.

Dr. Schneider has experience in pathology, neurology, psychiatry and psychoanalysis. His theme is that growth is an active electrochemical process associated with expenditure of energy (work), part of which maintains growth processes. "Growth consists essentially of the establishment of a brain organ tension-relaxation mechanism." Growth is completed when there is no change in mass, length, or cross-section area. The growth force is electromotive in character.

In chapter II, Schneider formulates a law of growth by equations. The ratio of brain to cord weight is specific to each species. Proceeding from the work of Tangl and Wetzel, he starts with the formula that "Thermodynamic work equals potential and kinetic energy" of growth. By substituting equivalents of work for heat, mass, resistance, by separating formulae for brain and cord weights, by developing constants, he reaches formula No. 20, and establishes a dynamic relationship among somatic growth (mass change), heat production, length, cross-sectional area, nervous growth, and alpha rate of the encephalograph which compares accurately with clinically-established values. The formulae indicate that heat production differs in animals in direct proportion to the ratio of brain : cord weight. Because the human has a larger frontal lobe and Island of Reil, the ratio is largest in humans.

The word "growth" has as many meanings as there are physicians. Schneider does not specify its particular meanings when used here. However, it covers four phases, age, mass, heat production, and alpha rate. The charts show that the relative heat production per unit of mass increases rapidly up to one year of postnatal life, then decreases rapidly to the age of three, where it appears stationary till eight years, from which

there is a fairly constant decline to the age of 20. In chapter 3, it is shown that the schizophrenic under insulin shock shows a low alpha rate, an increase of heat production per unit mass, and may gain weight. This resembles the situation in infancy and Schneider interprets this as a forced induction of growth by which the nervous system is "recharged." As schizophrenia appears especially between 16 and 20 years of age, "active positive growth may be suspected of deterring in some way forces which make for mental disintegration."

The growth of the nervous system begins as a response to the demands for integration by the organism's soma and immediate environment (mother). Schneider names these demands and/or the growth processes the "tenser-relaxer equilibrium" (TRE). He symbolizes growth as a pivoting mechanism which in immaturity exists among visceral integration, ideas-feeling and conditioned reflexes, plus the forces of growth and anxiety stimuli, of which the latter two disappear with maturity. This concept is based on: (1) each nerve having a definite charge or definite potential which can be released and recharged; and on (2) the source of this potential arising from the processes of somatic growth, which furnishes the tensers and relaxers.

Basing his evidence on the work of Coghill who showed that some animal embryos may react to stimuli before a functioning nervous system is established, Schneider states, "It was now clear that there existed at every stage of growth a thermodynamic potential-kinetic equilibrium." As further evidence he cites the easily-discerned differing character of human psychic tensions, metabolisms and constitutions.

He assumes that the accumulation of sterols and related compounds lead to *tensions* or potential energy, while metals and the production of heat lead to *relaxations* or discharge of kinetic energy. These substances are brought to the nervous system from the body and act on the TRE. In discussing pregnancy and psychoses, the following premises and conclusions are stated. Even in extreme emaciation the lecithin content in cellular tissue remains constant. Cholesterol and phospholipids (lecithin) increase 20 to 25 per cent above the pre-gravid values. "In brief, there is increase in the chemical substances responsible for widespread tissue tension." On page 18, Schneider reports 75 cases of psychosis in pregnancy and in the postpartum period. He shows a good correlation with the maternal blood pressure and endocrines (sterols); but he omits the much greater number of cases with more pronounced physicochemical changes (pre- and eclampties) who do not develop psychoses. And he goes on to associate pre-partum psychoses with viability and heat production of the fetus, than associates the postpartum psychoses with lack of heat production from the extruded fetus. Other causes cited for increased tension leading to psychosis in pregnancy are the lack of relaxers like iron and cop-

per. He mentions the relationship of corpus striatum disease to liver disease in Wilson's hepatolenticular degeneration. The corpus striatum contains more iron than other grey matter. Freeman found a decrease of iron in psychoses. Forgetting intentionally that there are more readily available stores of iron and copper in the constantly hemolyzing red blood cells and in the spleen, he assumes that fetal demands for iron, copper and essential metals upon the mother may, in psychoses, be met from the mother's striatum. The inference is that the right amount of iron here protects against psychosis of pregnancy.

Chapter IV gives treatment for hypertension based on the new concept. In a series of 12 cases treated by this method, two cases were called "irreversibly damaged," and the other 10 all responded to some degree. In this chapter there is also a new concept of castration.

Chapter V is on tinnitus and real hearing. Chapter VI is on imagined hearing, taste, and the integrative function of the tractus solitarius (including ego, id, and super-ego). Chapter VII is on time-space and the growth of the sense of reality. A summary, but no index, is present. Digressions from the main theme are noticeable.

This monograph is intended to prove that even before the nervous system is formed, a potential-kinetic equilibrium is present which is maintained by the electromotive forces arising during the growth of the nervous system. There is no attempt to show that function determines form (Kappers); that form is essential for nervous integration; that the blood brain barrier may be a physicochemical factor in nervous physiology.

The reviewer can agree with the foreword by Dr. Nolan D. C. Lewis that the monograph is original and should be an active stimulus to additional research. But in this enormous crossword puzzle of equilibrium and growth, the numerous blank spaces should be filled in only temporarily—and in pencil.

Language in Thought and Action. By S. I. HAYAKAWA. In consultation with Basil H. Pillard. vii, 307 and xxxvi pages, with bibliography and index. Cloth. Harcourt Brace. New York. 1949. Price $2.75.

An extraordinary book calls for extraordinary comment; the reviewer thinks this volume is a priceless tool for anybody engaged in the study of mankind and man's behavior. It is a revision and extension of *Language in Action*, which appeared in 1941 and has become a classic. There is a frank and revealing statement that the author has become convinced, since the publication of his earlier work, that his view "that the semantic discipline could be applied to the solution of many social and individual problems, now appears to have been somewhat oversimplified. I still believe that such application is possible; but it is not quite so easy as I am afraid I

made it sound.'' This qualification adds immeasurably to the value of the present discussion.

The immemorial gulf between human mentation, emotion, and the expression of them is unbridgeable. The lack of a bridge has contributed much to the difficulty of understanding and treating mental disorder. There have been occasions when the General Semanticists have appeared to believe that the adjusting of language-symbol to the mentation symbolized would be the philosopher's stone so long sought to resolve psychiatric disorders. The psychiatrist will welcome the fact that Dr. Hayakawa now takes pains to correct this misapprehension. Such partial spans across Ginnungagap as General Semantics offers can be of the utmost value if they are recognized as instruments, not mistaken for magic. Cow_1 is not cow_2 and the psychiatrist cannot be too often reminded of that fact.

Language in Thought and Action is a very important work indeed; it should be of much greater value for teaching than Dr. Hayakawa's earlier book; and it is close to indispensable for any social scientist. It is also pertinent to note that it is beautifully written and makes fascinating reading.

Human Behavior and the Principle of Least Effort. An Introduction to Human Ecology. By GEORGE KINGSLEY ZIPF, Ph.D. 544 pages. Cloth. Addison-Wesley Press. Cambridge, Mass. 1944. Price $6.50.

After an extended inquiry covering several years, Dr. Zipf has decided that the principle of least effort is the primary principle which governs our entire individual and collective behavior including language and preconceptions. He states, ''. . . every individual's movement, of whatever sort, will always be over paths and will always tend to be governed by one single primary principle which, for the want of a better term, we shall call the Principle of Least Effort. . . . In simple terms, the Principle of Least Effort means, for example, that a person in solving his immediate problems will view these against the background of his probable future problems, as estimated by himself. Moreover, he will strive to solve his problems in such a way as to minimize the total work that he must expend in solving both his immediate problems and his probable future problems. That, in turn, means that the person will strive to minimize the probable average rate of his work-expenditure (over-time), and in doing so he will be minimizing his effort, by his own definition of effort. Least effort, therefore, is a variant of least work.''

Part one is devoted to a study of the least effort in individual behavior. Here the author shows that words are used as tools to convey certain meanings in order to accomplish certain objectives with the least work effort; that mechanical tools and jobs are altered or revised in order to effect more economical results with least effort.

Part two scientifically discusses the principle of least effort as it applies to nationalistic economy, as well as to intranational and international economic stability. The author describes in detail the close dependence of individuals upon groups and vice versa. Finally, the author shows that whether one refers to the economy of the production of goods and services or to the economy of distributing them to persons of different status certain symbolic or cultural rules of procedure were used to accomplish the end result with the least effort and the least work.

In this book Dr. Zipf has scientifically set forth his method of proving that society, individually and collectively, plans its behavior and accomplishments so that it uses many short-cuts to avoid the expenditure of any more work and effort than is absolutely necessary. As one reads, one leans heavily toward agreement. The average reader, however, will find the book tedious because it is complicated by many equations, formulae and involved sentences which are not easily ferreted out unless one possesses a psychosocial research education. The book has excellent reference and index sections.

Dimensions of Personality. By H. J. Eysenck. XI and 308 pages. Cloth. Macmillan Co. New York. 1948. Price $5.00.

Dimensions of Personality is an effort to discover the main dimensions of personality and to define them operationally by means of strict experimental, quantitative procedures. The volume is the co-operative result of the collaboration of psychologists and psychiatrists at the Mill Hill Emergency Hospital, a war-time neurosis-treatment center in England.

Eysenck handles well the various issues of theories of temperament, personality structure, neuroticism, oscillation, perseveration, ideo-motor action, graphology, narcosis and suggestibility; and the author also comments intelligently on the Rorschach test. The scope of analysis is wide; the techniques are scientific and objective.

Dr. Eysenck and his collaborators imply in this treatise that personality is so cardinal a matter in psychiatry, that any ambiguity in the concept, or uncertainty about how to describe and measure the qualities it stands for, must weaken the whole structure of psychiatry, theoretical and clinical. This book serves to point up the contributions of psychology to the field of personality. There is included a comprehensive bibliography and subject index. Chapter VII, "Synthesis and Conclusions," sums up brilliantly the significant findings concerning neurotic introverts and neurotic extraverts, hysterics and dysthymics. The statistical tables offer interesting data; especially since the author wisely realizes that statistics make an invaluable servant, but a bad master.

America's Health. The National Health Assembly. 395 pages. Cloth. Harper. New York. 1949. Price $4.50.

In January of 1948, Oscar R. Ewing, federal security administrator, received from President Truman a letter asking that he submit a 10-year plan for expanding the health resources of the nation and raising the health standards of the entire population. To obtain the necessary information for his report, Mr. Ewing convened a National Health Assembly which met for four days in Washington, D. C. The assembly consisted of about eight hundred representatives of public, private and professional organizations and agencies which were directly concerned with health matters throughout the country. The assembly was divided into 14 sections; each investigated a major problem of our national health.

Mr. Ewing states, "To most readers, both lay and professional, these pages will reveal many startling facts of our present national shortcomings and health deficiencies."

The topics dealt with are: "What Is the Nation's Need for Health and Medical Personnel?" "What Is the Nation's Need for Hospital Facilities, Health Centers and Diagnostic Clinics?" "What Is the Nation's Need for Local Health Units?" "Chronic Disease and the Aging Process"; "A National Program for Maternal and Child Health"; "A National Program for Rural Health"; "What Is the Nation's Need for Research in the Service of Health?" "What Is the Nation's Need for Medical Care?" "State and Community Planning for Health"; "Physical Medicine and Rehabilitation"; "What Can Be Done to Improve Dental Health"; "A National Program of Mental Health"; "What Can Be Done to Improve Nutrition?" "A National Program of Environmental Sanitation"; "International Cooperation in Health."

Geriatric Medicine. The Care of the Aging and the Aged. Edward J. Stieglitz, M. S., M. D., F. A. C. P., editor. New, second edition. XVII and 773 pages with 180 figures, many tables, references and index. Cloth. W. B. Saunders Company. Philadelphia and London. 1949. Price $12.00.

"Geriatric Medicine is not a specialty" and—the reviewer joins the editor in his sincere hope—should never become one. It is the understanding of the physical and mental problems of the mature and aging and the application of medical art, skill and devotion to the care of the most valuable, venerable part of a nation's population—its elders. There is no physician who at one time or another has not been asked for advice and help for aging or aged people—a task which demands experience, wisdom and a different consideration due to the physiological changes in the course of advancing age.

This book, already in its second edition, edited by Dr. Stieglitz and a team of 46 distinguished co-workers, introduces the experienced physician to these multifold problems. This book gives an almost philosophical fundament of the problems which gerontology—one wishes to say "general medicine"—offers. The biological and clinical side, the sociologic-economic and cultural aspects of gerontology find their implicative considerations in the first section. This section with its 11 chapters deserves special recommendation for its inspiring qualities as well as its sincerity and Hippocratic devotion and for its unique approach and compiled information, rarely found elsewhere.

The following 33 chapters, each written by an expert, give a cross-section of the entire field of clinical pathology and therapy with special emphasis on psychosomatic aspects. The reader is grateful for the experienced, prevailingly functional approach to therapeutic problems in the aged which aims for more conservative compensation than for polypragmatic modernism.

This is not for students or for hyperspecialists, but there will be no true physician who will not appreciate and enjoy this unusual book which is so full of inspiration and advice.

Good pictures, many tables, interspersed case records and an extensive bibliography contribute to the value of this excellent work.

The Normal Encephalogram. By Leo M. Davidoff, M. D., and Cornelius G. Dyke, M. D. Second edition. Lea & Febiger. Philadelphia. 1946. Price $5.50.

Like the first edition of this book, which had been exhausted, the second edition is an extremely useful and practical presentation of the normal encephalogram. Due to the untimely death of one of the authors, Dr. Dyke, the revision was undertaken by Davidoff alone.

On the whole, there are relatively few changes in the second edition. What there are consist essentially in the addition of new techniques and some additional information gained since the publication of the first edition.

There are 155 engravings as compared with 149 in the 1937 publication. The text is composed of 214 pages and an extensive bibliography. The presentation of material is divided into the same five chapters as in the first edition: I. General Considerations; II.The Ventricles, Interventricular Foramina, and Aqueduct of Sylvius; III. The Cerebral Convolutions and Sulci; IV. The Subarachnoid Cisterns and Their Contents; and V. Intracranial Structures and Their Related Fluid Spaces.

In Chapter I, the relatively new techniques of planigraphy (laminagraphy) and subtraction are described. The former is a method of "roentgenographic plane sections of an object which can be accomplished by

moving synchronously the source of radiation in one direction and the film in the opposite direction, in a constant ratio, during the exposure. This is done by means of a connecting rod which rotates on an axis, the latter being located at the level of the plane to be reproduced." Subtraction is another method developed by Ziedses Des Plantes which consists of making "a preliminary roentgenogram of the skull with the patient's head so fixed that the exact same position can be repeated later. This he accomplishes by having the patient bite into a softened mass of dental wax which in turn is held in a rigid frame. Later on, the hardened wax which fits the patient's mouth exactly is then used to reproduce the exact position of the original. A diapositive is made of the original film. A second roentgenogram is made after the injection of gas or some other medium into the ventricles, or an opaque substance into the cerebral vessels by way of the carotid arteries. The diapositive of the first film is then superimposed upon the negative roentgenogram made following injection of the contrast substance. This results in a blotting out, or cancellation of the shadows of the object which are present in both roentgenograms, in this case, the bony structures of the skull. In this manner, the contrasting medium which is present only in the second roentgenogram stands out alone, in the case of ventriculograms, the ventricles, and in the case of arteriograms, the cerebral vessels."

Dr. Davidoff has also treated the subject of encephalographic complications more extensively than in the previous book and has also presented a longer description of the therapeutic effects of encephalograms.

Chapters II, III, IV, and V present very much the same material as in the earlier text but it should be noted that the arrangement of the figures is slightly altered.

The changes and additions in this present text, although not of a major nature, have added considerably to the text. This is "must" reading for any physician engaging in neurological work.

The Search for the Beloved. By NANDOR FODOR. 400 pages. Cloth. Hermitage Press. New York. 1949. Price $5.00.

An article entitled "The Search for the Beloved" was published in THE PSYCHIATRIC QUARTERLY of October 1946; it is chapter 26 of the book of the same title under review here—a book which conveys the analytic practices, the psychological theories and something of the personal philosophy of the author. Fodor is a lay analyst, a follower of Freud, whose theories and clinical techniques are unorthodox.

He holds, for example, that "life is a continuity which does not begin at birth," but before birth, and that the pre-natal period must be taken into account as the foundation of many kinds of neurotic behavior. In at-

tempting to establish the biological foundation of psychoanalysis, Fodor notes the prior attempt of Otto Rank. Rank's approach, he observes, was philosophical, his own is based on clinical experience and is independent of Rank's theories. A "Foreword" hint of technique states: "Demonstration of the biological character of an abnormal urge cancels the patient's resistance to the therapeutic effort and permits a speedy integration of personality."

The critic, one feels, will express the wish that it were all that simple; and he will also express the doubt that personality-integration so effected can be either reasonably complete or permanent. To this, one may answer that although Freud did not believe he had established the nature of it, he did fully believe in a biological basis for psychoanalysis; and Fodor can cite a long and brilliant clinical record in testimony to the efficacy of his treatment.

The Search for the Beloved develops the hypothesis—on the suggestive evidence of biological fact—that humanity is of fundamentally bi-sexual nature, as demonstrated by vestigial sexual characteristics, and that the earliest ontogenetic determination of mono-sexuality at impregnation of the ovum with the sperm does violence to this ancient heritage. For at the instant of achievement of union of sperm and ovum, male and female, sexual determination and new disunion take place. Man's old and never-to-be-satisfied search for the beloved, for the missing component, has begun once more. This may, says the author frankly, be "only a fantasy of humanity, which embryological data cannot yet support"; but ". . . it is conceivable that sexual determination leaves as profound an impression on his [man's] psyche as his original androgynous constitution has left on his body."

Fodor follows man and his endless search through intra-uterine existence, the trauma of birth, the traumata of early childhood, the fear of death which is also the primeval fear of birth. His work is buttressed by citations from very extensive clinical material and by dream analyses illustrative of his theories.

The writing of this work is clear, the material is well organized, and printing and format deserve a high mark for excellence. An index would be a great improvement. The reviewer thinks this is a brilliant and daring speculative work and that those interested in psychotherapy—of whatever school—will find it stimulating.

Character Analysis. Third edition. By WILHELM REICH, M. D. Translated by Theodore P. Wolfe. 516 pages with index. Cloth. Orgone Institute Press. New York. 1949. Price $6.00.

The well-known essays of Reich on character analysis are here presented in a considerably enlarged edition. In general, they might be said to represent an amplification, crystallization, and more consistent exploitation of

earlier remarks, notably by Freud and Abraham, concerning analysis of the resistances. As to this aspect of analytic technique, they are certainly much more specific than previous works. As a philosophical by-product, numerous cogent reflections on the function and operation of society are introduced. Some of the conclusions reached by Reich differ from those of Freud, perhaps most prominently in his treatment of any masochistic tendency as a masked aggression, instead of as the manifestation of a death instinct, which he would deny altogether.

Part Three, "From Psychoanalysis to Orgone Biophysics," presents the author's later views. Their place in the book, as distinct from those tenets generally or partially accepted by psychoanalysis, is clearly marked in the text. Naturally, these newer concepts will be met by varying degrees of acceptance and rejection, but not without considerable thought.

Before You Marry. 101 Questions to Ask Yourself. By SYLVANUS M. DUVALL. xv and 171 pages. Cloth. Association Press. New York. 1949. Price $2.50.

Although it is quite easy to fall in love, staying in love and living together happily as a couple is less a matter of good luck than of good management, Dr. Duvall points out in *Before You Marry*. The author, who is professor of social science and religion at the George Williams College in Chicago, has more than 20 years of experience as a counselor on marriage and family-life problems. From thousands of interviews and group consultations, Professor Duvall has selected the hundred and one questions that most individuals, he feels, should ask themselves before they enter into matrimony.

Before You Marry unequivocally accepts the fact that marriage is one of the most exciting and rewarding ventures ever undertaken by man. The author writes with gentle humor and with empirical wisdom on this significant phase in the lives of people. He speaks with insight on love and its relationship to marriage, on one's readiness for marriage, on the compatibility of couples, on family relationships, on money matters, on the matter of sex, on character traits that are essential to happy marriage, on personality, on mental health, and on handling crises when they inevitably arise. Dr. Duvall concludes that if young couples could have before marriage the understanding that comes from years of wedded life, there would be fewer divorces and more happy homes.

In *Before You Marry,* the author discusses well, however briefly and elementarily at times, the infinite variety of relationships that enter into satisfactory marriage. For the most part, the book is practical and based on sound common sense. It is written in a conversational style, abounds with good advice, and is interesting for the information it derives from scientific studies, research, and clinical evidence concerning marriage.

Handbook of Digestive Diseases. Second edition. By JOHN L. KANTOR, M. D., F. A. C. P., and ANTHONY M. KASICH, M. D., F. A. C. P. 658 pages, including 149 figures, extensive bibliography and index. Cloth. Mosby. St. Louis. 1949. Price $11.00.

A new and enlarged edition of Kantor's *Synopsis of Digestive Diseases* has grown under the editorship of Anthony M. Kasich to a veritable handbook of the subject. Its organization and its presentation are exemplary. The chapters on examination and special tests are well written. The reviewer feels that this book, which will serve its purpose excellently by its conciseness, should contain a few standard methods in detail with critical evaluation to make them workable (instead of references to standard textbooks). The valuable fractional gastric analysis should perhaps also consider the practical, informative caffeine test meal. As the chapter on liver function tests is a very good survey, it is felt that the biological tests (complement loss, trypanocidal function of the human serum, colloidal gold test) deserve mentioning for reason of completeness.

The presentation of the different pathologic unities is clear, comprehensive and well illustrated by good didactic drawings and well-selected pictures. The chapters on diseases of the small intestine and of the colon are especially well presented. The diseases of the liver and of the pancreas find a clear, critical interpretation. The chapter on digestive symptoms in extra-digestive diseases will be very much appreciated, and one regrets only that it is so short.

A chapter on psychiatric aspects of digestive diseases, written by James A. Brussel, is a significant and very welcome addition to this handbook. It shows the broadened, indispensable psychosomatic approach, expected today from the internist. The author gives not only a very well-written, clear introduction into the fundamentals of psychosomatic disorders of the alimentary tract, but explains well the indications for, and ways of, psychiatric approach.

A short, informative chapter on gastro-intestinal allergy, by Harry Swartz, ends this useful book. Extensive references to each chapter and a well-worked-up index increase the value of this very welcome handbook.

Jest What the Doctor Ordered. By FRANCIS LEO GOLDEN. 256 pages. Cloth. Frederick Fell. New York. 1949. Price $2.95.

Reviewed in Part I of the PSYCHIATRIC QUARTERLY SUPPLEMENT was Dr. Golden's *For Doctors Only*. The present volume is of the same type—jokes and anecdotes concerning medicine. This reviewer thinks *For Doctors Only* was funnier. However, Dr. Golden's latest book contains many a chuckle, with some guffaws and giggles added for good measure. It should be a welcome addition to any doctor's library and is appropriate for his waiting room.

Psychosexual Development in Health and Disease. Paul H. Hoch, M. D., and Joseph Zubin, Ph.D., editors. 277 pages. Cloth. Grune & Stratton. New York. 1949. Price $4.50.

In your reviewer's opinion this book deserves the attention of all psychiatrically-trained individuals. It not only contains the recordings of the proceedings of the thirty-eighth annual meeting of the American Psychopathological Association held in New York City, in June 1948, but contains a discussion of the many-sided problem of psychosexual development. It does not cover all aspects of sexuality, which would be an impossible task, but it does orient our thinking and discusses the subject from the approach of anthropology, of psychoanalysis, of sociology and of clinical findings.

In Part I, "Orientation," we find an introductory lecture by D. J. MacPherson. Following this, Alfred C. Kinsey and his associates outline the various concepts of sexual behavior. They conclude that normality and abnormality are primarily moral issues without biologic justifications and that it is society's code which is responsible for the psychic trauma causing personality disturbances. The next two chapters by W. H. Gantt and Professor Frank Beach describe interesting comparative studies of psychosexual behavior in animals. Lastly, Professor C. S. Ford analyzes a cross-cultural survey of the human sexual behavior of 150 societies. A discussion of these papers is given by Abram Kardiner.

Part II, "Anthropologic Approach," opens with a description of child sexuality in Pilagá Indian Culture by Professor Jules Henry. Professor A. Irving Hallowell also has a chapter relating his observations of sexual adjustments among Indians living in Manitoba. Following this, Margaret Mead compares the psychologic methods of weaning youngsters in several cultures seen in the South Pacific. Discussions are by Janet Roich and George Daniels.

In Part III, "Clinical and Psychoanalytic Approach," Richard Frank reviews the psychosexual development of the child and emphasizes that security, stability and honest understanding are of greatest help to the child as he meets the "fantasy dangers surrounding the sexual life."

Sandor Rado describes "An Adaptational View of Sexual Behavior." He advises that "the scientific picture of sexual behavior has become so distorted with artificialties that we must make a serious attempt to rediscover the obvious"; that "there is no such thing as an innate orgastic desire for the same sex. Three discernible causes may prompt the individual to develop mechanisms of orgastic arousal involving the same sex: hidden but incapacitating fears of the opposite sex; situational inaccessibility of the opposite sex; and desire for surplus variation. Accordingly, the fear voiced by many patients that their constitution includes a 'homosexual component' has no foundation in fact. . . . In individuals of inherited schizo-

phrenic predisposition, the sexual organization remains at a rudimentary level because at least two of its essential constituents, pleasure and love, are innately defective. The ensuing schizo-sexual behavior is marked by blurred awareness and floundering activity."

Gustav Bychowski compares his own psychoanalytic experiences relative to psychosexuality with the Kinsey Report.

Discussions by David Levy and by Paul Hoch follow.

Part IV contains an address given by Robert P. Knight relative to therapeutic approaches and criticizes the "strong-arm purging methods" which have been used in place of "skillful psychotherapy." His address is discussed by Dr. Hoch.

Part V, "Sociologic Approach" contains "The Sociologic Theory of Psychosexual Behavior" by E. W. Burgess; "Sociologic Factors in the Formation of Sex Attitudes" by E. Franklin Frazier and "The Social Regulation of Sexual Behavior" by George P. Murdock. The discussants here are Kingsley Davis and L. Guy Brown.

Standard Dictionary of Folklore, Mythology and Legend. Volume One: A-I. Maria Leach, editor. 531 pages. Cloth. Funk & Wagnalls. New York. 1949. Price $7.50.

The second and concluding volume of this valuable work will be published during 1950; and a third volume will be issued to contain the index. Such evaluation as can be based on the first volume suggests that this will become a standard and virtually indispensable reference work for students of the sciences of mankind. The editor notes that a "representative sampling" of material, rather than completeness, has been the aim of the compilation, that such a work can never be complete "until there comes an end to spontaneous song and creative symbol." She observes that Sir George and Lady Alice Gomme gave up their idea of a folklore dictionary when they discovered that the children's games and songs of the British Isles alone filled two large volumes.

If volume two and the index fulfill their promise, this work will be a reference source of a kind long needed by inquirers into human belief, superstition and symbol. There is a wide catholicity in the editor's "representative sampling." In volume one, for example, one may find notes on such diverse subjects as the mythology of the ass, superstitions and rituals surrounding blood, the history of carnivals and that of the Christmas carol, a report of some of the exploits of Coyote, and a note on that terrible, medieval British ballad, *Edward*. The notes are concise, as is to be expected in a dictionary; they appear authoritative—the publishers state they are the result of 12 years research; and there has been a commendable and apparently successful effort at impartiality among the scientific schools and a generally objective manner of presentation.

Widening Horizons in Medical Education. (A Study of the Teaching of Social and Environmental Factors in Medicine.) Report of the Joint Committee of the Association of American Medical Colleges and the American Association of Medical Social Workers. 228 pages with index. Commonwealth Fund. New York. 1948. Price $2.75.

This report, done in 1945-1946, was based on intensive study at 13 medical schools, brief visits to two more and questionnaires at 63 others. Answers to these last were general, since wartime conditions made it seem inappropriate to send formal time-consuming letters. The factor of medical social work was particularly explored since the "social worker's central focus is upon discovery and relief of the stresses and strains placed upon the patient by his family and community relationships, and his physical environment."

The preface of the book outlines some of the history of this phase of social work. In 1932 the Association of American Medical Colleges took official cognizance of the importance of the social and environmetal aspects of medicine and in 1938 arranged for a symposium on "Home Visits by Medical Students as a Teaching Asset." In 1939, however, the education committee of the American Association of Medical Social Workers found that only 11 medical schools were considered to have medical social departments that contributed to teaching medical students with sufficient consistency, formality of method, and significance to be parts of the medical curricula. This committee recommended the development of well-established departments of social work with adequate facilities for teaching, and urged that the teaching should be primarily the responsibility of the medical schools with social workers taking part only at the request of the teachers in such schools, and further that the purpose should be the interpretation of the social implications of medical care and not primarily instruction in medical social service. The social worker's contribution was "to develop out of her special skill in case work."

In 1941 a questionnaire was sent by the Association of American Medical Colleges to 72 medical schools. Of the 68 that answered, 10 had no social service departments available, and, in 31, social workers shared in student teaching. Medicine, pediatrics, and psychiatry departments were found to have special interest in the field of social and environmental factors. In 32 schools, one faculty member had responsibility for direction of medical social teaching.

The present survey found that the programs for integration of this new material into the teaching of medicine were still in a state of formulation. It outlines, in detail, procedures at various schools. Social workers have been particularly able to assist in case study projects by students of the clinical years. A number of such case studies are reported, as are samples of conferences held by residents, and with the assistance of social workers.

This book should be of practical value to those who plan teaching curricula, both in medical schools and postgraduate work. The use of social work terminology will attract the attention of the physician not accustomed to it but the meaning is entirely clear. One could wish that the illustrative cases could have been carried through to some more conclusive point and that a more clear-cut definition of aims and functions could have been possible. This work appears to be part of an important effort to reach such objectives in the field.

Cat of Many Tails. By ELLERY QUEEN. 314 pages. Cloth. Little, Brown. Boston. 1949. Price $2.75.

Ellery Queen has written the first intelligent book on the subject of a "mad murderer" which this reviewer has ever seen. The detection is based on the sound premise that a homicidal paranoiac has reasons—if psychotic ones—for his crimes. The author (or authors) have apparently sought sound psychiatric advice and have made good use of it. It is also noted humbly that Ellery's interpretations are oversimplifications and are not necessarily full explanations of the actions involved.

To this reviewer the book seems plausible and the psychiatry along generally accepted lines—which is not to say that the individual psychiatrist-reader may not find fault with it in whole or in part. A psychiatrist figures in this book in a role which all of his colleagues would agree reflects no great credit on the profession. One hopes that Queen's readers will not take this gentleman for a typical specimen. The temptation is great to denounce an author for a portrayal of this type; sometimes we forget we are human, too. And one must note that the gentleman in question is not the only psychiatrist in the book. There is some very sound psychiatric advice on the subject of guilt in the concluding pages, although one might doubt its efficacy in the case of a severe neurotic reaction.

Aside from its psychiatric interest, it should be mentioned that the *Cat of Many Tails* is an excellent detective story; for difficulty of solution it ranks with Ellery Queen's best.

Elephant and Castle. By R. C. HUTCHINSON. 655 pages. Cloth. Rinehart & Co. New York. 1949. Price $3.75.

This book contains a beautifully written story by the writer who is perhaps England's best living novelist. It is rather long, but interest is maintained, and characterizations are especially well done. It is a sympathetic story, full of people, with its setting in London.

The strange psychological reactions of an extremely narcissistic and compulsive woman, with an old family background, and her unusual domination of a character from London's worst slum district lead to disaster not only for them but for the whole family unit.

Protecting Our Children from Criminal Careers. By JOHN R. ELLINGTON. 374 pages. Cloth. Prentice-Hall. New York. 1948. Price $5.00.

The Model Youth Correction Authority Act made public in 1940 became the guide for California's Authority Act, its principles and its practice. This book outlines the factual and psychological background in Part I and the efforts of the State of California in correcting the practice of law for youth and older offenders in Part II. In Part III the scope of psychological and sociological implications is widened and strengthened to include services to all youth at the community level. An organization chart of the California Youth Authority as of October 1947 elucidates in a practical and systematic way the Californians' attempts to protect their children from criminal careers and to plan ahead to prevent detrimental and traumatic settings (psychologically, sociologically, or/and legally).

The author, special adviser on criminal justice for youth of the American Law Institute, has dedicated his book to William Draper Lewis, who, as director of the American Law Institute, has been instrumental in making possible "the fundamental improvement in the administration of criminal practice described in this book." John D. Rockefeller, 3d, has written the foreword.

Protecting Our Children from Criminal Careers, an excellently planned and well-written volume, is very informative in its dynamic revolution and evolution. It can assist in outmoding legal dogmata and atavisms, it has vision without being visionary. Legislators, lawyers, physicians, teachers, social workers, in fact all those dealing with guiding and judging youth and people in general, may contribute to making the attempts of California and other states applicable for *all* the United States.

Selected Writings from a Connectionist's Psychology. By EDWARD L. THORNDIKE. 370 pages. Cloth. Appleton-Century-Crofts. New York. 1949. Price $3.50.

Dr. Thorndike wrote the present book to meet a request that he collect some 300 pages of his most important contributions to psychology. He states, "In general, I have favored contributions which are not now readily available as references for a class because printed in journals or monographs, or in books likely to go out of print. I have, in fact, had in mind especially the needs of teachers who wish their students to know something of connectionist psychology, at first hand, but find *Human Learning* and *Man and His Works* far too superficial, and my other books of recent date far too long and too burdened with evidential matter."

This book is of interest, although some sections are far from up to date and are superficial.

Prognose und Therapie der Geisteskrankheiten. (Prognosis and Therapy of the Mental Disorders.) By Dr. MAX MÜLLER, a. o. Professor of Psychiatry at the University of Bern, Switzerland. Second revised and enlarged edition. 209 pages, including eight pages of bibliography and 18 pages of index. Cloth. Georg Thieme Verlag. Stuttgart. 1949. Price DM 16.50.

This book of the noted Swiss psychiatrist is a guide to prognosis and therapy of mental disorders intended for general practitioners and for those interested in psychological medicine. The more interesting part is the one devoted to prognosis. It is written with a deep human, though critical, professional optimism.

The chapters on therapy do not give very much new to the American reader. Müller puts great emphasis on what he calls "collective psychotherapy of the psychoses" following mainly H. Simon's plan of "complex therapy." It is based on the idea that even the most severely psychotic patient is still accessible to therapy. It strives to overcome prognostic pessimism and resulting inactivity toward inveterated cases by applying to the patient a program of different therapeutic methods which completely fill the day. It resembles in several ways an American mental hygiene program.

Although revised in 1948 and published in 1949, the therapeutic chapters are rather incomplete as far as therapy of central nervous system lues, evaluation of the different types of shock treatment and psychosurgery are concerned. The literature is otherwise well utilized and critically reviewed. Altogether this book is, in spite of its limitations, good reading, as it gives clear descriptions of modern psychiatric conceptions and an understandable introduction to the standard methods of the therapy of mental disorders.

Americans Betrayed. Politics and the Japanese Evacuation. By MORTON GRODZINS. xvii and 445 pages. Cloth. University of Chicago Press. Chicago. 1949. Price $5.00.

Robert Redfield has written: "So long as we can review in a spirit of just inquiry what we have wrongly done, and publish the result, we are not lost." *Americans Betrayed*, by Morton Grodzins, is a powerful, forthright, heavily-documented, down-to-earth statement concerning the Japanese in America who were herded into barbed wire pens after Pearl Harbor. The author feels that that action in America by the people of America sets a precedent, the implications of which no American can afford to ignore. To support his contention, Grodzins marshals together an abundance of facts, evidence, and substantiation generally.

Morton Grodzins, who is assistant professor of political science at the University of Chicago, spent three years collecting the material for this

book both in Washington, D. C., and on the West Coast. He traces carefully the steps that led to the adoption of evacuation of Japanese Americans as national policy. While the volume is scholarly and erudite, underlying its chapters filled with data is the straight-forward thesis: Under democracy, Americans have not the right, the privilege, the prerogative, of disfranchising, expropriating, and confining other individuals and their property without sufficient and established reason.

Professor Grodzins feels—and justifiably—that the evacuation of the Japanese Americans was a major event in the history of the American democracy, with disturbing implications for the future; that the manner in which the evacuation policy was made provides valuable insights into questions of fundamental importance far removed from the 100,000 Japanese immediately concerned; that the policy-making process is a crucial point of study for the understanding of government. In *Americans Betrayed*, then, the author has written a social and political history of a single significant decision, one that has deep relationship to the psychology of individuals and the theory of human nature.

The facts in *Americans Betrayed* are painstakingly gathered and obviously carefully sifted; the book itself is of first importance; and the viewpoint is always objective, scientific, and even psychologic. Professor Grodzins is opposed to pressure politics, to prejudice in any form, to illogical actions on the part of peoples and their government. The author's argument is persuasive and coherent, clear and dynamic, comprehensive and analytical.

When the Doctor Says It's Nerves. By HENRY JEROME SIMPSON. 89 pages. Cloth. Morehouse-Gorham Co. New York. 1949. Price $1.25.

This little book was written to give the average neurotic a better understanding of his condition and to point out principles from which he can expect to receive help. No one can cure a neurotic, says the author, but once the mystery surrounding his symptoms is dispelled, once the development of his bad habits of feeling and thinking is revealed to him, and once he is successfully taught to build up a healthy attitude and way of thinking, the inadequacies in meeting life's situations will be replaced by a more courageous and comfortable adjustment to all ordinary problems. A common-sense approach rather than an analytical one is stressed, and emphasis is placed upon the importance of a rational religious faith in bringing peace to the life of the neurotic.

The material is very superficial in places, and the author does not always stick to his topics, but there is a good deal of common sense in his approach to the problem. While the book alone may not help the neurotic too much, it will have its value to him.

The Mathematical Analysis of Logic. Being an Essay Towards a Calculus of Deductive Reasoning. By GEORGE BOOLE. 82 pages. Cloth. Philosophical Library. New York. 1948. Price $3.75.

George Boole's *The Mathematical Analysis of Logic* was originally published in London a century ago as a monograph. It is now reprinted as a contribution to the scientific foundations of the mathematization of logic, or what is called "symbolic logic." In this treatise, Boole makes reference to the work of De Morgan and Hamilton, Mill and Hobbes, Aldrich and Whately. He views logic with reference to the idea of quantity, but also indicates that it is related "to a deeper system of relations." The science of logic differs from all others; Boole says, "the perfection of its method is chiefly valuable as an evidence of the speculative truth of its principles." *The Mathematical Analysis of Logic* is essentially a philosophical book, with hints in it of fundamental concepts in logic, e. g., *null-class, truth-function, normal form,* that are presently accepted as part and parcel of contemporary thinking in the field.

Without Magnolias. By BUCKLIN MOON. 274 pages. Cloth. Doubleday. New York. 1949. Price $3.00.

This is a first rate book written by a first class writer. It describes a stratum of society which is in general never dealt with in literature, the lower middle class of intellectual Negroes. The book avoids both of the typical pitfalls of whites writing about Negroes—idealization and the interracial "sex conflict." In sober, rather melancholy, and still strongly accusing undertones, the author shows the everyday tragedies of the Negro in the South.

Psychologically, the book is valuable because it depicts in admirably candid fashion the inner impact and reactions of a series of highly masochistic people. Reality, *per se,* contributes the raw material, the different ways of inner elaboration are the characters' own contributions. Here is a father who perishes during a train accident sacrificing himself to rescue others; a mother renouncing re-marriage for the sake of her children—she loves an ungrateful daughter who has gone north and almost never writes; every morning is a disappointment in waiting for the letter which seldom arrives; a brother who postpones marriage for 10 years and sacrifices his own education to help his sisters. Here are two sons from "elevated" families who identify "below" their social possibilities. Above all, the book contains a masterly picture of an "appeaser," a president of a small college, who slowly emerges in the narrative as a central figure. The psychopathology of his type is paradigmatic for a specific neurotically-frightened individual, encountered in all cultures. Moreover, all shades of "approaches" to his misery are depicted: that of the rebel, the self-hater, the

hater of his own people, the slightly paranoiac, the bitter, the unconscious *provocateur*, the humble, beaten-down timid type, and so on.

Writers choosing the subject matter of a group in distress, are habitually in danger of overemphasizing the external misery, making their *dramatis personae* simply victims in two variations, the submissive sufferer and the rebel. The moment a writer does that his book is simple pamphleteering. In clear-cut contradistinction, the really creative writer stresses the inner masochistic reactions of his characters.

This reviewer arrived long ago at the conclusion that a simple psychologic yardstick can be applied to literary works dealing with externally influenced misfortunes. If the stress is put by the author on *external* factors, the book is propagandistic in scope and worthless as a literary product. If, however, the external factors are used only as catalysts to mobilize the *internal*, mostly psychic masochistic ingredients, the book has a good chance to be "literature." Moon's book passes the test and emerges as a work of distinction which can be read by anyone who has psychological interests, whatever his opinions are on the Negro problem. The author made his task unnecessarily difficult by selecting a controversial issue. One anticipates further work without this self-created obstacle. Mr. Moon is undoubtedly a writer to watch.

Banting's Miracle. By SEALE HARRIS, M. D. 233 pages. Cloth. Lippincott. Philadelphia. London. Montreal. 1946. Price $3.00.

This book has actually no relation to psychiatry and workers in this field, but is one which both the physician and the layman will want their children and grandchildren to read.

This biography of Banting is not a novel but the reader will often find it as enticing as a novel and yet more enduring. The story of Banting's life is allowed to speak for itself. The biography does not lag as it lengthens. It describes the Banting Era of diabetes which followed the Era of Naunyn and his distinguished pupils, Minkowski and Mering, and the Allen Era.

The book is an inspiring portrayal of an illustrious scientist, philosopher and artist, whose entire life was dedicated to the service of mankind. A magnificent tribute to one of the greatest physicians of our time.

Child Psychiatry. Enlarged second edition. By LEO KANNER, M. D. 752 pages. Cloth. Charles C. Thomas. Springfield, Ill. 1948. Price $8.50.

Leo Kanner is well known as psychiatrist, child guidance expert and pediatrician. He is associate professor of psychiatry and pediatrics at the Johns Hopkins University and director of the children's psychiatric service at the Johns Hopkins Hospital.

This second enlarged edition of *Child Psychiatry* has four parts: I—History of child psychiatry, II—Basic orientation, III—Clinical considera-

tions, IV—Phenomenology. Part II reveals the dynamics of nature, nurture and milieu in personality development and symptom-formation. The forces of the parent-child relationship are given their due share biologically, psychologically and psychiatrically speaking. Part III concerns itself with symptoms, anamnesis, psychological and psychiatric examinations and the therapies. Psychosomatic problems, as well as delinquency, are discussed in this section. Part IV is mainly concerned with psychosomatic problems.

Child Psychiatry is splendid orientation for all those entrusted with the bringing up and guidance of children. Pediatricians, general practitioners, psychiatrists, psychologists, child guidance and juvenile court workers, teachers, social workers and parents can find enlightenment and assistance in this book. It is well written, interesting, unbiased and a guide through the maze of childhood problems in our perplexing social and cultural setting.

The preface to the second edition was written by John C. Whitehorn, M. D., of the Henry Phipps Clinic. The author's own preface stresses his efforts to include the more modern developments of psychiatry and child guidance in this book. The second edition is rewritten for this purpose. The table of contents, the author index and subject index make this volume valuable as a text and reference work. It is highly recommended by this reviewer.

The Psychology of Development and Personal Adjustment. By JOHN E. ANDERSON. 720 pages. Cloth. Henry Holt. New York. 1949. Price $3.25.

The author states, "This book, written for freshman and sophomore college students, is based upon the lectures in a course in Human Development and Personal Adjustment given in the General College of the University of Minnesota. This course is part of a general education series organized to prepare the student for adjusting to present and later life. Most of the General College series are terminal courses, as the students leave at the end of two college years."

The author has written this book for students and not experts. He has enlisted students' reactions as his guide in selecting material. In an effort to make the book readable and straightforward, footnotes have been eliminated, and names of investigators have been omitted in the aim to attain a smoother style. At the end of the book is an excellent list of references. This text is highly recommended for the beginning student. The author has been successful in gaining an easy and informal style of presenting the material. He gives explanations in everyday terms and has done a good job in avoiding technical discussions.

A Textbook of Neuropathology. By BEN W. LICHTENSTEIN. xviii and 474 pages with 282 figures. Cloth. W. B. Saunders Co. Philadelphia. 1949. Price $9.50.

Dr. Lichtenstein is associate professor of neurology at the University of Chicago. His *Neuropathology* is an excellent text for the student who wishes to learn rapidly how to differentiate lesions seen on gross and microscopic examination. It is arranged according to the types of pathological processes to be found. The morphology is very lucidly described. With each lesion mentioned, there is a discussion of the morphologic differential diagnosis.

An excellent innovation is the addition of a chapter consisting of short alphabetically-arranged paragraphs on syndromes, paralyses, and uncommon diseases. A good working chapter on malformations of the nervous system is included. The neuroanatomical supplement is brief. There is the usual supplement on different stains and their uses. The references are sufficient for the size of the text. One must comment on the variety and excellence of the photographs.

Altogether this *Neuropathology* is to be recommended highly.

The Neurosis of Man. By TRIGANT BURROW, M. D., Ph.D. 392 pages. Cloth. Harcourt, Brace. New York. 1949. Price $7.50.

This book is the history of phylobiology, of the 30 years association of Clarence Fields and the author, who with a small group of co-workers, professional and lay, at the Lifwynn Foundation in Westport, Conn., carried on a research into the social behavior of man. Starting with the thesis that what man is overtly is not what man is basically, this group carried on an inter-relational self-study, a research into the phylum of man as a whole. The interest was in man's clear concept of himself and of his behavior, in discovering the physiological basis of man's social symptomatology and in finding a remedy applicable to man everywhere.

The reasoning goes along in the following fashion: While man's behavior is intrinsically healthy, it is held that through the intrusion of affect (prejudice) and language, his cotentive, primary, spontaneous type of attention became deflected into purely interpersonal involvements, into partitive attention or "ditention," with consequent disturbance of the phylo-organism's basic homeostasis and conflict in the inter-relational processes of man. The affect-dichotomy is induced so early in life and has become so intimate a part of man's social development that its existence is now wholly unrecognized by him. The problem of man's distorted attention is his most serious one and is responsible for the wide-spread disharmony in human relations. Man's real disturbance is a physiological conflict. There is need to see that the disorder resides within the tissues of phylic man.

Never was there greater need for science to come to man's aid in the study of his own behavior. Only a broader knowledge of man's physiology will serve to restore the problem of man's behavior to its proper place within the domain of medicine and biology. The healthy, cotentive adaptation of man is automatically present when the intrusion of ditentive elements has been intercepted. Reintegration into the pattern of the total organism is the task that faces the student of phylobiology.

Instrumental studies, centering chiefly on oculomotor behavior, respiratory reactions and brain-wave patterning in the ditentive and in the cotentive mode of the organism's adaptation are to be found in the appendix, along with a description of the detailed proceedings that were followed in the various experiments, together with graphs and tables presenting the results. Following the appendix, there is a glossary and a name and subject index.

The author undoubtedly feels very strongly about his subject but he could have perhaps stated his thesis more briefly and in simpler language. There is tremendous tautology. One gets a feeling of speech-making and preaching; there is not a little coloring of philosophy, religion, idealism and hope; and the logic is not always convincing. Though there is much truth in what he has to say, many will disagree with some of his formulations.

Psychosomatic Medicine. The Clinical Application of Psychopathology to General Medical Problems. By EDWARD WEISS, M. D., Professor of Clinical Medicine, Temple University Medical School, Philadelphia, and O. SPURGEON ENGLISH, M. D., Professor of Psychiatry, Temple University Medical School, Philadelphia. Second edition. XXX and 803 pages including figures, charts, bibliography (14 pages) and index. Cloth. W. B. Saunders Company. Philadelphia and London. 1949. Price $9.50.

The psychosomatic conception in general medicine is today just as indispensable for the physician as are percussion and auscultation. However, great vagueness prevails still in its must-integration into the medical routine of diagnostic conclusion and of therapeutic approach. The motto of this book ". . . for this is the great error of our day that physicians separate the soul from the body" written by Plato 2,300 years ago has not lost its challenging validity up to the present day.

The second edition of *Psychosomatic Medicine,* widely enlarged, revised and ably rewritten in its main chapters, is a textbook of unusual didactic value. The authors start with definitions of psychosomatic problems and, guiding the reader through the entanglements of psychologic and psychiatric implications into the conception of the great clinical pictures of psy-

chopathology, they achieve the natural integration of the psychosomatic approach into general medical conceptions.

Detailed case records and frank and critical utilization of the literature contribute to the value of this timely textbook. Schematic tables give practical outlines; a great selective bibliography and careful indexing facilitate the use of this book for the busy practitioner.

Neuroanatomy. By FRED A. METTLER, A. M., M. D., Ph.D., Associate Professor of Anatomy, College of Physicians and Surgeons, Columbia University, New York. 536 pages with 357 illustrations. Second edition. Cloth. C. V. Mosby. St. Louis. 1948. Price $10.00.

Dr. Mettler's text of neuroanatomy, published first in 1942, has become one of the standard books on the subject. The present volume is the second edition. There have been some changes and additions; among others a more detailed description of the blood supply of the nervous system, and a correlation between the subdivisions of the thalamus and the cortex, which represent the result of recent investigative work.

Basically, the book retains the excellence of presentation of the first edition. Outstanding in their clarity are the illustrations, which are so essential in a subject like neuroanatomy. In addition to the subject index there is also a detailed and extensive list of references.

The book is not written as a "dry" theoretical dissertation, but it is thoroughly practical, with a view to correlating anatomic facts with clinical neurology. And, herein, lies the book's chief value, for students, practitioners and neurologists.

Cross Section 1948. Edwin Seaver, editor. 454 pages. Cloth. Simon and Schuster. New York. 1948. Price $3.50.

This book contains the fourth annual collection of some of the best stories written just prior to 1948 and early in 1948. The first section contains a 45,000-word enjoyable satire, "The Pismire Plan," by Jessamyn West. Section two contains two novelettes, one about the carefree sexual life of soldiers in Rome, by Robert Lowrey, who wrote *Casualty* and the other "A Character Study," by Teo Savory. Section three has 15 short stories, several of which are cleverly written. Section four is one vividly written chapter of *The Naked and the Dead*, by Norman Mailer. Section five, "Criticism," contains a critical study of the writings of Philip Wylie, "Morals and Mr. Wylie," by Robert Adams and a criticism of modern literature, "The Classic or Nothing," by Isadore Schneider.

This book, as with all books of this type, contains stories which the editor considered "tops" in writing, but except as a library book its lasting value is questionable.

Shock Treatments and Other Somatic Procedures in Psychiatry. By LOTHAR B. KALINOWSKY, M. D., and PAUL H. HOCH, M. D. 294 pages with foreword by Nolan D. C. Lewis, M. D., bibliography and index. Cloth. Grune and Stratton. New York. 1946. Price $4.50.

This book is an indispensable manual for physicians and others interested in shock and somatic therapies. Written in a clear, understandable style, its reading is easy and enjoyable. Only the meat of the subject at hand is presented and much useful information is concentrated between its covers. Insulin shock, the convulsive therapies, combined treatments, pharmacotherapy, various physiological and electric therapies together with prefrontal lobotomy and theoretical considerations are discussed and clarified. This reviewer cannot recommend this book too highly. It is of inestimable value for those searching for a therapeutic guide in the treatment of the psychoses.

Oscar Wilde. By EDOUARD RODITI. 256 pages. Cloth. New Directions Books. New York. 1947. Price $2.00.

Edouard Roditi's interpretations of Oscar Wilde's development need reinterpretation by the sophisticated mind, which feels that opposites are true; that lying is innate to art, and that the undefinable sublime is approximately attainable, not by form, rhetoric or dialectics alone but by the moods evoked by any and all means at the artist's command. The use of microscopic hairlines to focus upon differences between Wilde and his contemporaries is the author's method of analysis. One cannot see that Wilde's ethics should occupy a full chapter of a book, unless right and wrong are degrees of beauty. One may agree, however, with the author that Wilde is elegant rather than noble.

This book should be judged as an analysis of a period with accent on "Wilde." It concludes with three appendices—biographical, philological and bibliographical.

The Fiesta at Anderson's House. By SCOTT GRAHAM WILLIAMSON. 339 pages. Henry Holt. New York. 1947. Price $2.75.

In San Juan, Puerto Rico, a newspaper man invites very diverse people to his party, a poet, a banker, an American social worker, a local politician, a painter, and several prostitutes. The characteristizations seem to be the best part of the book, but the interactions are forced and artificial. When a hurricane is approaching, the guests abandon all inhibitions and taste, and the party ends in a sexual orgy and brawl. A murder also takes place but no one pays any attention to it. There is much that is unconvincing and improbable in this novel which aims to be psychologically realistic.

Progress in Neurology and Psychiatry. An Annual Review. Vol. IV. E. A. Spiegel, M. D., editor. 582 pages. Cloth. Grune and Stratton. New York. 1949. Price $10.00.

Those who have the other three volumes in this series will surely want to add this one to their libraries. The same large group of well-known authorities in these sciences have contributed their efforts to collect and to summarize the most important neurological and psychiatric advancements made during the past year. The book is in four divisions: the basic sciences, neurology, neurosurgery and psychiatry. Special emphasis has been given to the psychopathology of vision.

Those who have not obtained the previous volumes can start with this, since each is complete unto itself, since each reviews literature of the past year, as most "year books" do. The subjects follow the continuity of a textbook and make good reading. There is a "world" of information in this volume, a post-graduate course in itself.

Marihuana in Latin America—The Threat it Constitutes. By PABLO OSVALDO WOLFF, M. D., Ph.D., M. A. Member of Expert Committee on Habit Forming Drugs of the World Health Organization. Sponsored by Washington Institute of Medicine. 56 pages including bibliography. Paper. Linacre Press. Washington 6, D. C. 1949. Price $1.50.

This monograph on marihuana, written by an outstanding expert in the field of narcotic drugs, is probably the most complete report on this interesting drug. It covers every aspect of the significance of marihuana (hashish) as well from the historical, botanical, pharmacological and medical as from the economic and forensic viewpoint. Written in a brilliant style it deserves the close attention of all circles concerned with the implications of narcotic drugs.

Beitrage Zur Psychiatrie (Contributions to Psychiatry). Second edition. By KURT SCHNEIDER, Professor at the University of Heidelberg. 95 pages. Paper. Georg Thieme Verlag. Stuttgart. 1948. (Imported by Grune & Stratton. New York.) Price $1.50.

This collection of five papers which were published during the Hitler era, cannot be considered a major contribution to present-day concepts of psychologic medicine. Statements like "illness exists exclusively in the somatic sphere and we apply the term 'ill' in the mental sphere only if it can be traced back to morbid somatic processes" will probably not be accepted anywhere. Word salad and new word formation ("*Psychologisierung,*" "*Motivationszusammenhänge*") are no assets to the author's style. The concepts of the Freudian school seem, as far as this author is concerned, to be non-existent. One cannot asume that this book is considered in Germany-of-today representative of the state of German psychiatry.

Mental Hygiene in Public Health. By PAUL V. LEMKAU. 396 pages. Cloth. McGraw-Hill. New York. 1949. Price $4.50.

E. L. Bishop states in the foreword, "Taken as a whole, this book is an indispensable contribution to public health literature. It should do much to broaden the concept of the need and practicability of establishing mental hygiene service as a component of modern public health practice—a need which is compelling today. The potential usefulness of the book, however, is much wider than as a reference and guide for health officers. It deals so broadly with the subject of mental hygiene as to be of great value both as a reference and as a text in many types of educational institutions, from colleges of liberal arts to medical schools and other graduate institutions."

The book has two parts, one dealing with the place of mental hygiene in public health, and the other with the development of the individual. The appendix contains a review of the psychopathological states, and a list of visual aids which can be used to supplement some of the material in the book is included.

It is doubtful whether this book would serve the purpose of a textbook in a medical school or other graduate institution; it seems to be written more on the level of the beginning student in human behavior, and, as such, provides a valuable orientation to the problem of mental hygiene in public health.

Sociology. Third edition. By EMORY S. BOGARDUS. 598 pages. Cloth. Macmillan. New York. 1949. Price $3.00.

The author states, "The volume begins with the daily experiences of students and moves logically to a consideration of the basic processes of group behavior. It brings the findings of latest scientific research in sociology into language designed to be inviting to the beginning student. It runs the gamut from the concrete and actual experiences of everyday life to the latest and most fundamental concepts concerning human relations."

Part I deals with the group approach to sociology, discussing social groups and culture, and social groups. Part II is headed "social groups" and deals with the family, the community, occupational groups, play groups, the educational group, religious group, racial group, the world group. Part III is concerned with group organizations and contains discussions relative to group changes, group disorganization, group controls, group leadership, group processes. Part IV deals with research groups.

The text is well written, and the reviewer agrees with the author that the book covers the entire scope of sociology. There is no doubt that this is an excellent book, and one which should be used as a basic text in the college classroom.

Some Aspects of Hostility in Young Children. By ANNELIESE FRIEDSAM KORNER. Grune & Stratton. New York. 1949. Price $3.50.

This is an examination of the hostility expression of 20 normal pre-school children in a "projective" type test situation. The author seeks to determine the interrelationships of hostility on both behavioral and fantasy levels, parental attitudes, and home treatment.

Korner has recognized the difficulty of rendering her projective material into quantitative terms but she has not solved the problem. Indeed, statistical analysis plays a minor part in this study and is in a large measure based on some highly subjective qualitative rating scales, and non-specifically defined criteria. In addition to this, her sample is too small, especially when treated in subgroups.

For these reasons her conclusions may not be accepted as a basis for generalization or as a solution to the all-important problem of establishing a sound experimentally-established basis for experientially-determined clinical beliefs. It is, however, a good qualitative study of hostility patterns and of the emotional balances of the 20 children involved. The perspective is considerably enhanced by data not only from the testing room but from the classroom and home. The consistencies and inconsistencies are pointed out and discussed from an eclectic theoretical basis. Despite its limitations for normative data this volume makes a worth-while contribution to the growing library of works concerning personality mechanisms in young children.

Psychotherapeutische Studien. By ERNST KRETSCHMER. 215 pages with five illustrations and bibliography. Cloth. Georg Thieme Verlag. Stuttgart. 1949. Price DM 13.50.

Kretschmer offers here a condensation of his lifelong experience in psychotherapeutic activities. Based on his conception of constitutional biology as the fundament and on newer physiologic and psychologic studies the author gives a thoughtful integration of mental and somatic problems.

Kraus' *Tiefenperson* becomes in Kretschmer's analysis of the problem a workable conception and *tonus*—in the widest meaning—a science of constitutional and psychotherapeutic problems. The author illustrates psychotherapeutic procedures with his own cases.

This book, based on analytical psychotherapy, represents probably the maturest picture of the state of an outstanding German psychiatric school. It is worth while studying. The independent, individualistic way of Kretschmer's work may explain his disregard of the work done in the Anglo-American world.

The Aspirin Age. Isabel Leighton, editor. 491 pages. Cloth. Simon & Schuster. New York. 1949. Price $3.95.

The editor has compiled 22 chapters dealing with the period 1919-1941—the years sandwiched between two world wars. During this period the nation had its worst depression and its biggest spending spree. People worried about money, war, depression, communism, sex and other equally important things. They searched for a cure-all, but never came closer than the aspirin bottle which did not seem to be the solution.

For those of us who missed various events such as Orson Wells' broadcast of the men from Mars, a most vivid account is given by Charles Jackson, author of *The Lost Week-End*. Also reported are Lindbergh's flight across the Atlantic, and the tragic kidnap-murder of his son; the two still-talked-about fights between Tunney and Dempsey; the Dionne quintuplets; the death of President Harding; the last days of Sacco and Vanzetti, Father Coughlin, Huey Long, Wendel Willkie, and Calvin Coolidge.

The author has actually compiled a book which could easily be classified as a history; but the stories which are interwoven with the facts make the book outstanding and a most welcome form of reviewing, or learning about, historic events.

The Body Is Faithful and Other Stories. By Alis DeSola. 209 pages. E. P. Dutton. New York. 1947. Price $2.75.

This is a collection of short stories dealing with the psychological complexes of love, sex, and the emotional disturbances of childhood. These intense and sensitively written short stories have settings from Venezuela to Germany. The story which may be of the greatest interest to the psychopathologist is one describing a woman's jealousy of her husband's pet seals, although it is one of the less original works.

ERRATUM

Sex and the Statutory Law. By Robert Veit Sherwin. 90 and 74 pages. Cloth. Oceana Publications. New York. 1949. Price $2.50.

The size of this very valuable handbook, which is recommended for the psychiatrist who deals with sex abnormality as a medical problem, as well as for the attorney who must approach it from the legal point of view, was inadvertently misrepresented when the book was reviewed in the April 1949 issue of this Quarterly. The review listed the book as of 74 pages, which is in error. It is in fact 90 plus 74 pages, two volumes in one cover, or a total of 164 pages. The Quarterly is glad to correct the error.

CONTRIBUTORS TO THIS ISSUE

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HARVEY H. CORMAN, M. D. Dr. Corman, graduate of Tufts College in 1942, became an instructor in psychology there, then was graduated in medicine from Tufts in 1945. He was instructor in anatomy at Tufts, then served a general internship at Michael Reese Hospital, Chicago, and became a medical resident at Montefiore Hospital, New York City. Dr. Corman entered the army in 1946, then served in a Veterans Administration neuropsychiatric hospital in Los Angeles from 1946 to 1948. He was a resident in neurology at Montefiore Hospital, New York City, in 1948 and a resident in psychiatry at Manhattan State Hospital, Ward's Island, N. Y., in 1948 and 1949. He is at present a graduate student at the Psychoanalytic Clinic, Columbia University, and a research assistant at the New York State Psychiatric Institute, New York City. Dr. Corman is the author of scientific papers in the *Tufts Medical Journal* and the *American Journal of Physiology.*

ALBERT A. COLE, M. D. Dr. Cole was graduated from the University of Pennsylvania in 1939 and received his medical degree from the Hahnamann Medical College in 1944. He was with the Menninger Clinic in 1946 and on the staff of Manhattan State Hospital, Ward's Island, N. Y., in 1947 and 1948. At present, he is in private practice in New York City and is engaged in psychiatric research with delinquent children.

MARTIN COHEN, M. D. A graduate of Columbia University College of Physicians and Surgeons in 1898, Dr. Cohen has been for many years a practising ophthalmologist in New York City. He is president of the board of visitors of Manhattan State Hospital, Ward's Island, N. Y., and has long been interested in state hospital problems and in those of mental hygiene and mental disorder in general. He is consultant in ophthalmology at New York Post-Graduate Hospital, consultant in surgery at the Manhattan Eye, Ear and Throat Hospital, and a member of numerous professional organizations. He is a diplomate of the American Board of Ophthalmology and a fellow of the American College of Surgeons.

SIMON KWALWASSER, M. D. A graduate of the College of the City of New York in 1930, Dr. Kwalwasser received his medical degree at St. Andrews University, Dundee, Scotland, in 1934. After two years of internship he joined the staff of Rockland State Hospital, Orangeburg, N. Y., in 1936 and was in charge of the insulin treatment unit there from 1940 to 1943. He entered the army in 1943 and was in charge of the psychiatric section of a general hospital in the European theater of operations. He returned to Rockland State Hospital in 1946 and left there recently to become assistant medical director of Hillside Hospital, Bellerose, N. Y. Dr. Kwalwasser has served as a research fellow in child guidance at Bellevue Hospital, clinical assistant in the out-patient department at Mt. Sinai Neurological Clinic, and is now an associate and attending physician in neurology at Sydenham Hospital. He is an affiliate of the New York Psychoanalytic Institute, a member of the American Psychiatric Association and local psychiatric and medical groups, and is a diplomate of the American Board of Psychiatry and Neurology.

LAWRENCE C. ROBINSON, M. S. Born in 1921 in St. Joseph, Mo., Mr. Robinson was teaching and studying in that state when he joined the marine corps in 1942. After his discharge in 1944 he attended Stamford University, from which he was graduated in 1946. He obtained his master's degree in psychiatric social work from the New York School of Social Work, Columbia University, in 1948. He worked on the study in this issue of THE PSYCHIATRIC QUARTERLY while a student and later on the staff at Rockland State Hospital, Orangeburg, N. Y. He is now a psychiatric social worker with the Veterans Administration in Sacramento, Calif. Mr. Robinson is married and has one child.

A. M. MEERLOO, M. D. Dr. Meerloo was engaged in the private practice of psychotherapy in The Hague, the Netherlands, prior to World War II. When the Germans invaded the Netherlands, Dr. Meerloo joined the underground, later escaping from occupied territory to become chief of the psychological branch of the Netherlands armed forces in London. Later in the war he was assigned to co-ordinate all welfare for the Netherlands. He has been living in New York since demobilization. Dr. Meerloo is the author of several books and many scientific articles, mostly on subjects related to social-psychological problems.

SAMUEL D. LIPTON, M. D. Dr. Lipton is a graduate of the University of Michigan Medical School in 1939. After interning at the United States Marine Hospital, Staten Island, N. Y., and at the Receiving Hospital, Detroit, Mich., he became assistant resident in psychiatry at Cincinnati

General Hospital, Cincinnati, Ohio, in 1941. He served in the army as a neuropsychiatrist from 1942 to 1946. He was a resident in neurology, University of Chicago clinics, in 1946 and 1947 and instructor in psychiatry at the same clinics in 1947 and 1948. He has been in private practice since 1948, and is at present staff assistant at the Chicago Institute for Psychoanalysis.

ROBERT SEIDENBERG, M. D. Dr. Seidenberg is a graduate of the College of Liberal Arts of Syracuse University and of the Syracuse College of Medicine. After a rotating internship at the Syracuse Medical Center, he served in the army from 1944 to 1946. He attended the school of military neuropsychiatry at Mason General Hospital, Brentwood, N. Y., and later was chief of the neuropsychiatric section, Army Station Hospital, Florence, Ariz. He is now a resident psychiatrist at Syracuse Psychopathic Hospital and is at present working on psychosomatic research in the out-patient clinic. He was born in Syracuse in 1920, is married and has one child.

LEBERT HARRIS, M. D. Lebert Harris, born in Canada in 1924, was graduated from the University of Western Ontario Medical School in 1947. Following a general rotating internship at Syracuse University Medical Center, Dr. Harris was appointed to the staff of Syracuse Psychopathic Hospital in 1948 and at present holds a temporary appointment as senior psychiatrist. At the end of his two-year appointment at Syracuse, he is planning to enter psychoanalytic training at the New York Psychoanalytic Institute. Dr. Harris is interested in clinical research and in a psychoanalytic approach to medical problems in general. He is married; his hobbies include golf and classical music.

MALCOLM L. HAYWARD, M. D. Dr. Hayward, born in Wayne, Pa., in 1915, is a graduate of Harvard College in 1938 and of the University of Pennsylvania Medical School in 1942. Following internship at the Pennsylvania Hospital, he was resident in psychiatry there from 1943 through 1946. During 1944 and 1945 he also held a fellowship in gastro-enterology at the Hospital of the University of Pennsylvania, and has held a research fellowship at the Hall-Mercer Hospital since 1946. He has been in private practice at the Institute of Pennsylvania Hospital since 1946. Dr. Hayward is now receiving training in psychoanalysis at the Philadelphia Psychoanalytic Institute. He is an instructor in psychiatry at the University of Pennsylvania Medical School. Dr. Hayward is a member of the American Psychiatric Association, and of other professional organizations. He is author of the article on "Direct Analytic Therapy" in the 1949 volume of the *Davis Cyclopedia of Medicine*.

LEOPOLD BELLAK, M. A., M. D. Born in Vienna in 1916, Dr. Bellak was educated in Austria and attended the University of Vienna Medical School from 1935 to 1938. He was secretary of the Academic Association for Medical Psychology at the University of Vienna in 1936. Dr. Bellak received M. A. degrees from Boston University in 1939 and Harvard in 1942. He was Austin and Randouil fellow at Harvard University and the Harvard Psychological Clinic from 1940 to 1942 and was instructor in psychology at the Boston Center for Adult Education during the same period. He obtained his medical degree from New York Medical College in 1944. He was successively, intern, resident and staff member at St. Elizabeths Hospital, Washington, D. C., from 1944 to 1946. He has been in private practice in New York City since 1946. He is now associate in psychiatry and assistant psychiatrist at the New York Medical College, Flower and Fifth Avenue Hospital. Dr. Bellak has been an instructor and lecturer in psychology and is now psychiatric consultant for the Jewish Board of Guardians and the Committee for the Care of Jewish Tuberculous. He is the author or editor of several books and of more than 20 scientific articles on psychological, psychiatric and psychoanalytic subjects.

FRANCIS J. MOTT. Francis J. Mott is a lay psychoanalyst who has developed his own interpretations of psychological dynamics and his own methods of treatment. He terms his technique of dream analysis "biosynthesis." British by birth, Mr. Mott has practised as a lay analyst in New York, Los Angeles, Washington and London, and is at present living in England. He does not reject Freudian concepts but places his own interpretations and draws his own conclusions from them, holding, for example, as noted in his paper in the present QUARTERLY, that the gastro-intestinal situation which gives rise to the Freudian concept of anal-oral aggression is not primary but is a repetition in reverse of the uterine libidinal state. Mr. Mott, an inventor in his early career, says he turned to psychology when he became convinced that physical invention meant the end of the human race unless its progress were matched by changes in the psychology of man himself. He is the author of a number of books on both individual and group psychology.

NEWS AND COMMENT

MENTAL HOSPITAL INFORMATION SERVICE SET UP

An organization to be known as Mental Hospital Service, which is to function as a clearing house for technical information among hospitals and other mental institutions, is being established by the American Psychiatric Association. The first number of a news bulletin to be issued monthly will appear in January 1950. Announcement of the new service by George S. Stevenson, M. D., president of the association, noted that it was made possible by a $44,500 grant from the Commonwealth Fund. Services, financed by the grant, will be free to hospitals requesting them during a trial period, after which there will be subscription fees to make the institution self-sustaining.

The Mental Hospital Service monthly bulletin will report briefly on new developments in clinical practices, administration, community relations, legislation and other matters of interest to hospitals in improving care of patients. Those who wish detailed information about matters mentioned in the bulletin may call upon the new service to supply it.

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EDWARD LEE THORNDIKE DIES AT 74

Edward Lee Thorndike, Ph.D., professor emeritus of education at Teachers College, Columbia University, and internationally known authority on educational psychology, died at his home at Montrose, N. Y., on August 9, 1949, at the age of 74.

Dr. Thorndike, after receiving bachelor's degrees from both Connecticut Wesleyan College and Harvard, and a master's degree from Harvard, took his doctorate in philosophy at Columbia in 1898. After a year of teaching in Ohio, he became an instructor at Teachers College, Columbia, and in 1904 became a full professor there, holding that position until he retired in 1940.

Dr. Thorndike was not only a pioneer in educational psychology but in psychological measurement. He made a major contribution to the devising of the psychological tests used by the army in World War I. Another of his major interests was in adult education.

Dr. Thorndike was the author of more than 500 books and articles, many of them standard educational and psychological texts. He was a member of numerous educational and scientific societies.

MALZBERG MONOGRAPH ON EPILEPSY PUBLISHED

A 13-page monograph, *Order of Birth and Size of Family Among Epileptics,* by Benjamin Malzberg, Ph.D., director, bureau of statistics, New York State Department of Mental Hygiene, has been published by the Craig Colony Press, Craig Colony, Sonyea, N. Y. The paper is a statistical study, based on the family data of 3,906 consecutive first admissions to Craig Colony.

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GROUP THERAPY PROGRAM IS ANNOUNCED

The American Group Therapy Association has announced the program for its seventh annual conference, to be conducted at the Hotel New Yorker, New York City, on January 13 and 14, 1950. The program will include presentation of "Activity Group Therapy—A Sound Film," discussion of prediction of behavior in group therapy sessions from Rorschach protocols, analysis of character traits in group therapy, group therapy for mothers, and group therapy in special settings. The conference registration fee is $2, for members $1. To provide time for discussions and questions, only three papers will be presented at each single session.

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SECOND WORLD FEDERATION MENTAL HEALTH ASSEMBLY HELD

The second mental health assembly of the World Federation for Mental Health met in Geneva, Switzerland, from August 22 to August 27, 1949. Dr. André Repond of Switzerland replaces Dr. J. R. Rees of England as president of the federation, and Dr. William Line of Toronto, Canada, is new vice-president. Dr. Rees was appointed director-general of the federation, and Dr. Kenneth Soddy of England, secretary. Membership in the federation includes 14 American educational and scientific societies, of which the American Psychiatric Association is one. There were 51 member societies from 32 countries prior to the August assembly.

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DR. STEVEN G. JULAY DIES IN NEW YORK

Dr. Steven G. Julay, psychiatrist and psychoanalyst, died on September 7, 1949, in Rowayton, Conn., while returning to New York City from a vacation trip. He was 52 years old.

Born in Hungary, he received his medical degree from the Royal University of Budapest and studied psychiatry and psychoanalysis in Vienna, Zurich and Paris. Before coming to this country and entering private practice in New York City in 1944, he had been in practice in Europe. Dr. Julay was a member of the American Psychiatric Association and other professional societies and was well known as a writer of psychiatric articles.

GOVERNOR LAYS LETCHWORTH INFIRMARY CORNERSTONE

Governor Dewey laid the cornerstone of a new infirmary building at Letchworth Village, Thiells, N. Y., on October 13 in a ceremony which marked the formal opening of New York State's postwar building program to relieve overcrowding in Department of Mental Hygiene institutions. Three other Letchworth buildings were started at the same time; cornerstones for them were laid by Frederick MacCurdy, M. D., commissioner of mental hygiene; Assemblyman Lee B. Mailler of Orange County; and Frank G. Boudreau, executive director of the Milbank Fund. In the same building program, construction is already under way at Hudson River, Buffalo and Binghamton State Hospitals; and work now under contract will provide more than 2,800 new hospital beds.

DR. PEARSON RESIGNS AS INSTITUTE HEAD

Dr. Grosvenor B. Pearson has resigned as director of the Western State Psychiatric Institute and Clinic, Pittsburgh, Pa., it has been announced by Dean William S. McIlroy of the University of Pittsburgh Medical School. Dr. Pearson, who has headed the Institute since it was opened by the Commonwealth of Pennsylvania seven years ago, is entering private practice but will continue to devote part of his time to the Institute, serving as its clinical director.

NEW GENETICS JOURNAL

The American Journal of Human Genetics, official publication of the new American Society of Human Genetics, is making its first appearance with the October 1949 issue. The society, organized in September 1948, now has about 300 members, representing many phases of medicine, anthropology, sociology and allied fields. Its journal will be a quarterly, with the October 1949 issue the first number of the first volume. The editor is Dr. C. W. Cotterman, Heredity Clinic, University of Michigan, Ann Arbor, Mich.

PSYCHODRAMA PRODUCTIONS ARE OFFERED

The Theatre of Psychodrama of New York City is presenting 27 psychodramatic productions this winter and next spring at the Mansfield Theatre, 256 West 47th St., New York City. The productions, spontaneous and unrehearsed, are described as "a social experiment" bearing on the possibilities of mass therapy. Problems of world significance are dramatized, with audience participation. The productions are being given every Sunday at 8:40 p. m. and will continue through May 21, 1950.

HILLSIDE HOSPITAL PAVILION DEDICATED

The Lowenstein Memorial Pavilion was dedicated at Hillside Hospital, Bellerose, Long Island, on October 23, 1949, increasing the bed capacity of that institution from 88 to 175. Governor Dewey was among the speakers at the dedication.

Hillside Hospital is a non-profit and non-sectarian mental institution for voluntary patients suffering from early and curable symptoms. It has been an affiliate of the Federation of Jewish Philanthropies of New York since 1948. The hospital announces plans to increase research and training facilities and to establish a general hospital and a psychosomatic unit on the institution grounds. Its training program now provides for 12 residencies for physicians in postgraduate psychiatry and psychotherapy.

DR. MALZBERG CONDUCTING NEW RESEARCH PROJECT

A $7,000 research grant by the National Institute of Mental Health of the United States Public Health Service will be used by Benjamin Malzberg, Ph.D., director of the bureau of statistics of the New York State Department of Mental Hygiene, to make a comprehensive statistical study of the hospitalized mentally ill on a scale never before attempted. The study will cover all first admissions to the New York civil state hospitals since April 1, 1943. The principles of life table analysis will be applied to show life expectancy according to age, mental disorder and other factors. An effort will be made to trace the history of each patient admitted since April 1, 1943 to the present time.

NEW BULLETIN ON NARCOTICS ISSUED

The first copy of a new periodical, *Bulletin on Narcotics,* has been issued by the United Nations. It is a 61-page illustrated publication, the first issue of which contains a series of illustrated articles on opium, the coca leaf and other subjects. The *Bulletin* is intended to present current reports on the control of narcotics. It will be a quarterly, selling for $2 a year, presented in separate French and English editions, with summaries of important articles in Chinese, Russian and Spanish. The *Bulletin* is prepared by the Division of Narcotic Drugs, Department of Social Affairs of the United Nations Secretariat.

PSYCHIATRIC AIDE CONTEST

The third annual competition for Psychiatric Aide of the Year for 1949 is announced by the National Mental Health Foundation. Roland Brand of the Milwaukee County Asylum for the Chronic Insane, won the $500 award for the 1948 Aide of the Year.

MENNINGER FOUNDATION RESIDENCIES

The Menninger Foundation has announced an increase in its residency program with the addition of the Topeka State Hospital, Topeka, Kan., to the clinical facilities available to the Foundation for training. The state legislature has appropriated over $1,000,000 to establish the state hospital as a training center under the auspices of the Menninger Foundation. The Foundation is admitting four new fellows to the School of Psychiatry this winter, and accepting eight additional for July 1, 1950.

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MINNESOTA COURSE ANNOUNCED

Fred Mettler, M. D., of the Neurological Institute, Columbia University, New York City, will be one of the visiting faculty members for the course in clinical neurology which will be presented at the Center for Continuation Study, the Medical School, University of Minnesota, from January 30 to February 11, 1950. The course is intended for doctors interested in increasing their knowledge of clinical neurology, and is recommended for neurologists, psychiatrists, pediatricians, interns and neurosurgeons.

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SPRING PSYCHOTHERAPY COURSES ANNOUNCED

The Postgraduate Center of Psychotherapy, Inc., sponsored by the Institute for Research in Psychotherapy, Inc., announces that plans have been completed for its courses in the spring of 1950. The studies, of postgraduate level, are open to psychiatrists, clinical psychologists and other professional personnel. Information may be obtained from Miss Janice Hatcher, registrar, Postgraduate Center, 218 East 70th Street, New York 21, N. Y.

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PSYCHOANALYTIC FELLOWSHIPS AT YALE

The department of psychiatry, Yale University School of Medicine, has announced five fellowships of $1,000 each, to help defray expenses of psychoanalytic training of young teachers and scientists. The fellowships are made available by the Michigan-Yale Phillips Educational Corporation.

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MENTAL HEALTH FILMS PLANNED

Through co-operation of mental health leaders in 13 states, a program for authoritative films dealing with psychiatry and related subjects has been announced by George S. Stevenson, M. D., medical director of the National Committee for Mental Hygiene, and president of the American Psychiatric Association. The program will involve an initial expenditure of $250,000 and will be directed by the newly-organized Mental Health Film Board.

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